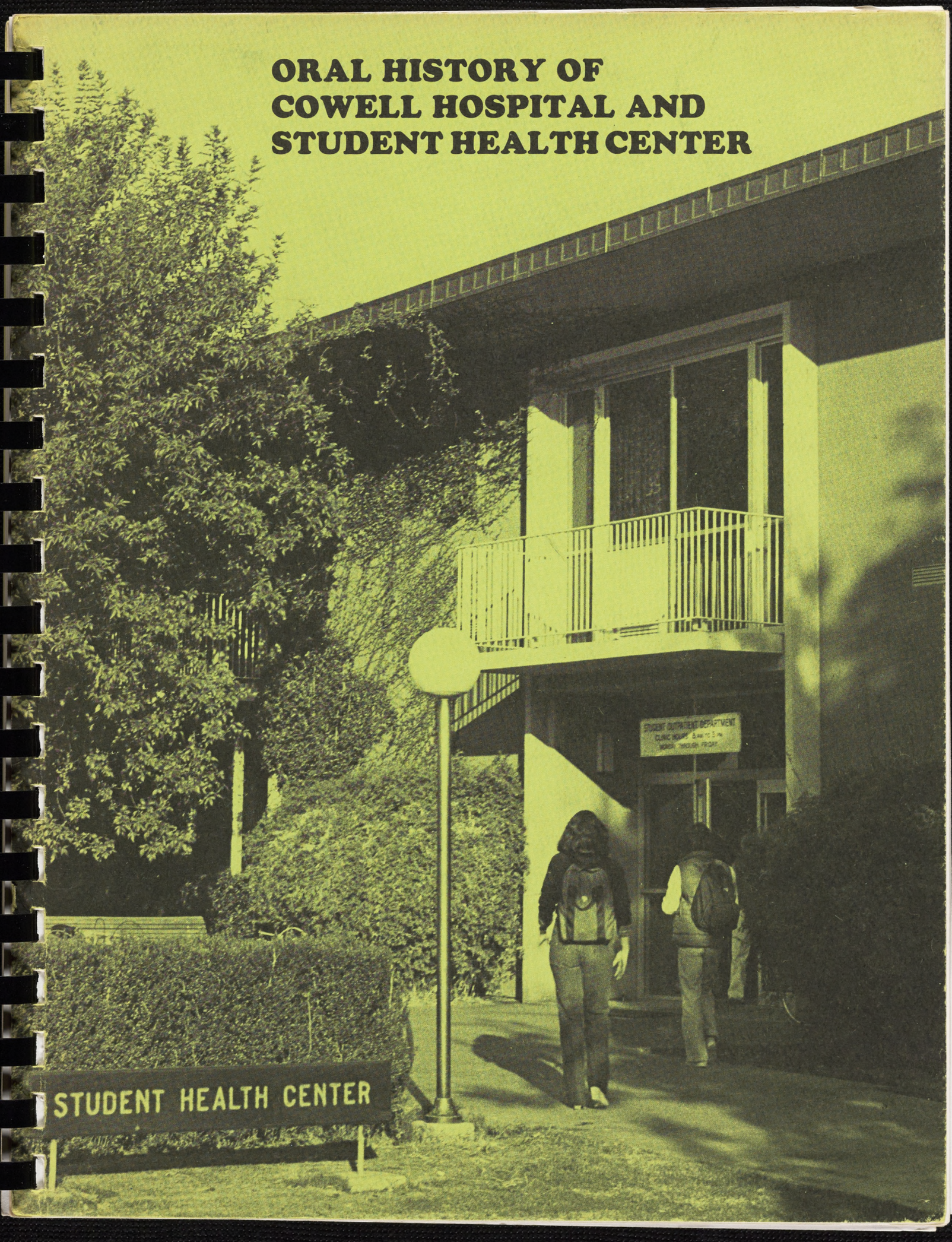
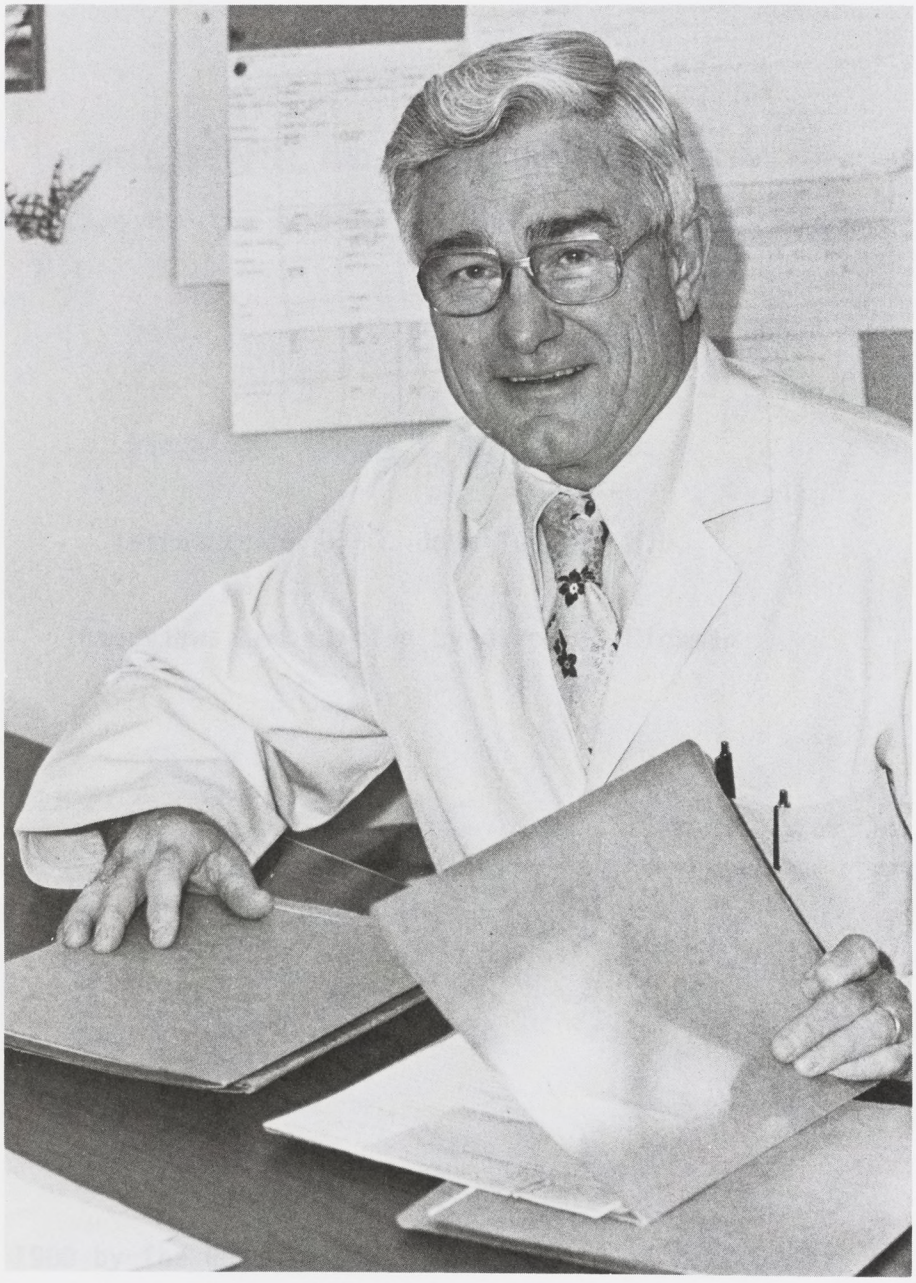
ORAL HISTORY OF COWELL HOSPITAL AND STUDENT HEALTH CENTER





Thomas Y. Cooper, M.D., Director

Shields Library University of California, Davis
The Oral History Office

COWELL HOSPITAL AND STUDENT HEALTH CENTER:

Health Care for the College Student on a Changing Campus

Narrator: Thomas Y. Cooper, M.D.

Introduction by C. John Tupper, M.D.

Interviews and editing by Avrom I. Dickman

History of the Interview

Since 1971, the Oral History office, Shields Library, U.C. Davis has assumed the responsibility of securing and publishing the recalled experiences of living persons who were major figures in the history of the campus and/or the development of agriculture in California. The history of Cowell Hospital and the Student Health Center thus adds a notable addition to the growing oral history collection.

Director, Dr. Thomas Y. Cooper was interviewed on tape on four occasions in the winter of 1979, the last two interviews were of three hours each. Dr. Cooper's memory was equal to the difficult task of recalling the most important events that occurred during his tenure as Director which dates from 1956. In addition, he recalled hearing about many of the events that took place during the leadership of Dr. Homer Woolsey from 1934 to 1956 and of Dr. Thomas E. Cooper, his father, from 1925 to 1947.

Many of the present and retired employees who have served the Health Center for many years recalled their experiences and assisted greatly in keeping the record straight. While it is impossible to give credit to all of them, included were the following: Jeff Aran, Faye Baker, R.N., Dr. David E. Brown, Marguerite L. Chally, R.N., Dorothy Dunning, R.N., Patricia Goss, Dr. John H. Jones, Dr. Richard Larkey, Betty Lewis, Dr. Charles L. McKinney, Emil Mrak, Betty Quick, Knowles Ryerson, Dr. Ruth Storer, Mary Ann Tomich and Polly Welch.

Typing the transcripts was done by Eva Marie Crow and Dennice Caldwell. Proof reading was done by Evelyn Spieth.

The cooperation of all of these persons has made it possible to publish this history. However, responsibility for errors and omissions lies solely with the undersigned interviewer and editor of the work.

Avrom I. Dickman
Interviewer and Editor

INTRODUCTION

Most colleges and universities in the United States have some form of health care available on campus to their students. Many have student infirmaries or health services. Among the best of these is the Cowell Student Health Center at the University of California's Davis campus.

Thomas Y. Cooper, M.D., has been the guiding spirit and driving force of the Cowell Student Health Center since he assumed its directorship in 1956. He had, at that time, been in private practice in Davis for six years and has continued his private practice on a part-time basis since that time. He found himself in charge of student health services in a small town with a small university of a few thousand students enrolled primarily in agriculture and veterinary medicine. He was to see a remarkable growth in enrollment to 10,000 students by 1966 and to 18,000 students by 1978. He was to see Davis declared a general campus of the university in 1959 with addition of a College of Letters and Science and of a Graduate Division and to see that followed in the 60's by development of a College of Engineering and Schools of Law and of Medicine.

When Dr. Cooper assumed the directorship, there were no hospital facilities in Davis and only a few physicians. The nearest hospitalization was in Woodland ten miles to the north or in Sacramento fifteen miles to the east. It became necessary for him, therefore, to develop an inpatient facility and emergency room capability. It was also necessary for him to develop a close cooperative working relationship with the specialists in the area. He has accomplished that so successfully that he now involves some sixty-three doctors and offers the highest quality of medical care in a variety of specialties at the health center. The Student Health Center is, in many ways, like a fire department. Its occupancy cannot be measured on a day to day basis but must be measured on the basis of its ability to deal with fair sized outbreaks of infectious and contagious disease, of food poisoning and the like, where the census may go from three to thirty in a matter of hours, and may drop again just as precipitously. Under Tom's leadership, an outpatient department was developed that is supported by the inpatient staff. This makes for flexibility and efficiency but calls for a staff of high morale and capability, which he has developed.

The Cowell Student Health Center at Davis is a hospital approved by the Joint Commission on Accreditation of Hospitals and is self supporting. It has an emergency room, a major surgical operating room and a minor surgery room and is equipped with cardiac monitoring capability and an external defibrillator. No one has questioned the need for these sophisticated devices since the day when two cardiac arrests occurred at the same football game, one involving a player and the other a game official. Both were given cardiopulmonary resuscitation on the scene

and both were rushed to the Student Health Center, one by ambulance and one by flat bed truck, where both were defibrillated, monitored and both are alive and well today.

The Cowell Student Health Center at Davis is a monument to Thomas Y. Cooper, M.D., and to his dedication to the health and welfare of students and to the establishment and maintenance of an institution of the highest quality in the best tradition of the medical profession.

I first met Dr. Cooper in the fall of 1965, when I was a recruit for the deanship of a yet to be established medical school. I found him to be an immediate and warm friend. I admired what he had accomplished at the health center which I could well appreciate since I was, at that time, director of consultation services at the University of Michigan's Student Health Center. Tom and his wife, Elaine, became very close friends to my wife, Mary, and to me, entertained us at their cabin in the Sierra and, through the years of building a medical school, offered us every hope, help, cooperation, friendship and advice for which we will be ever thankful.

This history tells the story of the Cowell Student Health Center which is the story of Thomas Y. Cooper, M.D.

C. John Tupper, M.D.
Founding Dean
U. C. Davis Medical School
Past President
California Medical Association

TABLE OF CONTENTS

Cowell Hospital and Student Health Center

CODE THREE EMERGENCY!

A. I. Dickman: Dr. Cooper, the potential health hazards to students both on and off campus are frightening to contemplate. On campus there is a large student population through which communicable diseases may easily spread; the many animals here may be a vector in animal-human disease; the cyclotron and radiation research pose a health problem; experiments with leukemia, tuberculosis, botulism, poisonous chemicals in the labs, by both vet-med and human medical students and faculty can produce hazardous results. There are many types of accident possibilities from bikes to cars to over dose of drugs etc. Off campus there is danger from floods, explosions, train wrecks and many others.

I would like to mention specific emergencies and ask you to detail the procedures that would be used here at the Health Center. To start, please go back in your memory to the month of February, 1966 when the Asian Flu hit in epidemic proportions.

(From newspaper and radio accounts at the time: Called one of the worst epidemics in UCD history, Asian Flu hit the campus in February 1966. To treat the hundreds of cases, the recreation rooms of Hughes and Beckett Halls dormitories were turned into hospital wards, one for men and one for women. Four doctors and a full staff of nurses and aides, many of them volunteers from the community, worked over-time to care for the stricken students. The campus food service brought trays from the food line and also supplied ice and fruit juice. On February 16, 307 students were treated as outpatients and during that week 74 were admitted to hospital care. Students from within 100 miles of their homes went home to convalesce.)

Thomas Y. Cooper: I remember it well. The basic structure of the outpatient department is designed so that the student patients may

TYC: drop in for minor ailments or they may phone ahead and set up an appointment to see a physician of their choice and have more personal health care. When this epidemic occurred, most of them came to our attention by the route of drop-in, as they would wake up with fever, aching and headache and would come over. The first day or so we took it in stride and felt, "Well, we have a little flu going"...We had experienced periodic epidemics of flu throughout all of our school activity and this was nothing unusual, but suddenly we became aware of the fact that the numbers were accelerating and we became concerned about what the magnitude of this might be. The symptoms were not those of a severe illness except that it was very disabling for the students; they felt miserable, with fevers and bad headaches. They needed to have nursing care of a minor degree, enough that we began to realize that our usual routine of seeing students in the out-patient department and then admitting them to our infirmary would not be sufficient. The numbers were rapidly exceeding the capabilities of the health service as it existed at that time.

So we contacted the director of the campus housing service and arranged to set up beds in one of the adjacent dormitories. We managed to find a great number of cots and beds with which to set up an infirmary-type service. Typical of Davis, the resources of the campus were put at our disposal, there was tremendous cooperation from all areas, from the Chancellor's Office down to all of the workers who came over and pitched in and helped. We had community support as far as the nurses were concerned, we had community support from Red Cross nurses aides who came over and helped supply the bed care that was needed.

Perhaps I should explain about our routine so that you can see the changes that needed to be undertaken. The outpatient department of the Cowell Health Center had been organized so that students who paid a registration fee were entitled to come to the Health Service for medical care, and out of the registration fee monies we set up an organization that would provide the nursing and medical service in the outpatient that the students needed within the limits of our facilities. At that time, as I recall, we had only two or three physicians, we had a limited nursing service and the bed facilities were also limited. The program did provide an infirmary-type of service and registered students were eligible for ten days of infirmary care. There was no decision that had to be made about the economics of this; the students were entitled to this service and it was up to us to rally and to see how it could be provided. So by using campus facilities we were able to set up this temporary, field-type hospital where the students were cared for in the basement of adjacent dormitories. Rounds were made twice a day by the nursing service and by the physicians. Those students who were

TYC: less ill were kept there and treated and fed. Those who were more seriously ill were transferred over to the inpatient service here where they could have regular hospital-type care. The fortunate thing about this type of an epidemic, even though it was very explosive and involved a large number of patients, it was relatively short-lived and people were able to be in and out in a matter of just a few days.

I recall another flu epidemic that was just as severe, around 1953, during the summer, when 600 girls from Girls State were on campus and 400 of them were hit by the flu. The community came to our aid then too. In all such cases, we contact the State Public Health Department who does epidemiological studies to identify the causative organism.

One of the other things in our history that comes to mind even more vividly, in that I can remember a few more details of it, occurred when we had a Q-Fever epidemic here on the campus, and this episode occurred earlier, I think, than the Asian Flu epidemic. Q-Fever, as far as I knew, was almost unheard of in the United States. The Q-Fever epidemic occurred when we were still in the old Health Service in East Hall, back of North Hall, with three or four rooms downstairs and five or six rooms upstairs, making a very small infirmary. This Q-Fever epidemic was interesting in that the patients came in complaining of symptoms of flu, with headache and eyeball pain and we were really not quite certain as to what was going on so we called for some assistance from the State Department of Public Health. Drs. Lynette and Michaeljohn were two of the physicians who became interested in this. They came up and drew blood samples and identified the organism and the cause of this disease as Q-Fever. The students were extremely ill with bad headaches, bad pain in the eyes, bad cough, and findings of a viral-type pneumonia. Well, we had never heard of Q-Fever and we didn't know anything about it or what to do for it. We were then in the early stages of antibiotic therapy, and,as I remember, Aureomycin was a drug that had come on the market and we were able to use it and believed that it did help the pneumonia infection. More interesting than that, though, I think, was after determining the organism we found that it was directly related to sheep; the ticks that lived in the ear of the sheep and the excreta of same would be carrying the organism. They traced that down further and found that most likely the Q-Fever came in on some of the sheep that Jim Wilson (Professor, Animal Husbandry) had brought in from Australia. We had a very interesting campus epidemiology study going which I thought was fascinating.

AID: Were all of the patients connected in one way or another with the sheep?

TYC: No, not necessarily. Apparently, if they were walking down the street or in an area where the sheep had been, they were possibly infected. For example, an outbreak very shortly after ours occurred up in Colusa, where many of the city hall personnel were sick with Q-Fever. They investigated and found that about a week or two prior to their becoming ill, one of the local farmers herded a bunch of sheep down the street right in front of the city hall. Of course there were droppings there and the workers coming out for lunch shuffled through it and they later developed Q-Fever. This was again a good example, I think, of the cooperation of the campus, the administration and the State Department of Health, whom we've called on periodically for assistance.

AID: Okay, another emergency. A flood occurred in the Marysville-Yuba City district and many victims were brought to the Health Center.

TYC: 1955. Right off, I don't recall the specific details of it other than that a considerable number of people were brought down; not necessarily though because of medical problems, but due to a housing scarcity because they had to evacuate and they had to have a place to live. I believe they stayed in the gymnasium and in the dormitories as well as the old Rec Hall. I'm not exactly sure of the timing but I think it was probably between semesters and the dormitories were available. The Health Center was involved only in that it provided emergency medical service.

AID: Let's take the emergency of a husband whose wife is about to have a baby and he is ready to take her to Woodland but realizes very early that he'll never make it. So he comes to the emergency door of the Health Center.

TYC: Yes. We have had a policy as long as I have been involved in this organization, that any individual who arrives at our emergency entrance is seen, evaluated and is advised as to what to do for his or her care. We try to adhere to the policy that the Health Service is primarily funded and designed to care for students and that it would not be a source for routine medical care for other than students. But, nonetheless, emergencies do occur and we try to be prepared for them. I recall a young lady did come to the emergency room one night in hard labor and ready to deliver, and in seeing her there was no question that she would not make it to the hospital in Woodland, so we opened the door and said, "Come on in," and we rounded up some equipment and were able to assist in the delivery and everything worked out very fine. There were no complications.

We had somewhat anticipated such an occurrence and had most of the equipment available that we needed for this, but as

TYC: I recall, we didn't have a specific obstetrical pack, as it's called, that one could grab and have all of these things there. Needless to say, after that happened, a pack was set up and it is still in existence. It hasn't been used but that once that I know of.

AID: The case that we're probably referring to: the man was Bob Haight, an electrician on campus.

TYC: Oh yes, I remember.

AID: I was told that it was either the fourth or fifth child and the wife had started labor and he arrived at the emergency entrance about 2 o'clock in the morning. And, I was told, the head nurse was Faye Baker who then was actually sleeping in the building. Faye got up and she and the Duty Nurse (Barbara Smith) delivered the baby in the automobile. They then brought the baby inside and you were called; and you checked it over and then the baby and the mother went on to Woodland. And this "baby" incidentally, just married in 1978.

TYC: If a person comes here, no matter whether he is a student or not and is ill enough to be hospitalized, he will be admitted. So if a casual visitor comes here with chest pains, for example, and in the judgment of the clinician he is too sick to go elsewhere, we will put him in our hospital and take care of him until he leaves. We do not say to a person with chest pains or about to have a baby, "We're sorry, you are not a registered student, you must leave," because of the negative results of such a decision.

AID: We're going to get, later on, into your sports responsibilities, but let's take the emergency that occurred in the middle of the third quarter playing Chico State when the head lineman suddenly collapsed and lay motionless on the field.

TYC: I remember it very well. The year was 1967. And it was, as you say, in the third quarter of the Chico game. The head linesman was Jack Mauger (pronounced Major). There was suddenly some commotion on the field and I could see that he was lying on the ground. I ran across the field and when I got there I saw that he was unconscious, cyanotic, his respirations were nonexistent and he was obviously in acute cardiac distress, as I could find no pulse. We ripped open his shirt and I began to apply external cardiac massage, opened his mouth and put an airway in and got ventilation going. It was our habit to have the ambulance at the field, and the ambulance attendants immediately came over with the gurney while Dick Lewis, the trainer, assisted, and I continued to apply cardiac massage; we put him in the ambulance and brought him back to the Health Center. When we arrived

TYC: at the emergency room, we applied a cardiac monitor and found that he had a total cardiac arrest -- he had a straight line on the monitor. We then applied external shock and with this he began to show evidence of cardiac activity which was only temporary; it quit and we had to shock him again. With this he regained his normal cardiac rhythm and shortly began to have a detectable pulse and then on to recovery of adequate circulation and ventilation. He showed all the signs of complications that develop from this, in that he had considerable amount of pulmonary congestion and after recovery a tremendous increase in his blood pressure to overcome and compensate for the prior deficient circulation.

AID: Was this a defibrillator with which you give the shock?

TYC: Yes.

AID: How recently had you purchased that equipment?

TYC: The defibrillator was a Carbon-Farnsworth style which now no longer is used. I had heard that it was available through a surplus in the Sacramento Hospitals; they were buying new equipment and this was one that was too small for their new cardiac unit, so we were able to purchase it and it was in the emergency room. We had trained ourselves on its use, but had never used it. It was very fortunate that it was there and was working and we were able to shock him back. After doing this, I then called Stan Schilling, the internist on call, who was our chief consultant in internal medicine. Stan came over and assisted in the patient's continued care. I left Stan in charge of the care of the patient and I went back to the field. The game was still going on and I always felt that I should be at these games because it is an NCAA requirement to have a physician present and I wanted to get back as quickly as I could. The ambulance drove me back. I was on the sidelines for only about two or three minutes when one of our defensive halfbacks intercepted a pass (his name is Jerry Attaway) and he took the ball near our own goal line and ran almost the full length of the field at which time he was tackled. When he was tackled he was thrown to the ground, struck his chin and knocked himself out. With that, he swallowed his mouth gag (mouth protector); at least he got it into his back throat where it obstructed his airway. And so there he lay, motionless. Dick Lewis and I ran onto the field and Dick now jokingly says that he'll never forget my comment..."My God! Not another one!" We had more difficulty in trying to resuscitate Jerry because he had much more clothing and equipment to remove, with his shoulder pads and all. Nonetheless, we removed his mouth piece, established an airway and massaged him. Again we had the ambulance crew come and help us

TYC: and we hurried back to the Health Center, put him on the monitor and it again showed a straight line. We shocked Jerry with a little more difficulty because of the delay and the deeper cardiac embarrassment which he had and he didn't respond as quickly as the other patient, but he did finally come around. Of course, Stan Schilling was still there with the other patient so Stan was able to help. The outcome of both of these cases was very gratifying in that Jack Mauger, who was then very active in athletics doing his referee work as well as teaching in Sacramento, went on to become the President of the Consumnes College school district where he was administrator until he retired. As far as I know, Jack's still doing fine. It's very gratifying to me, and they never fail to send me a Christmas card. Jack was an athlete way back; he was a Cal Berkeley track man. I believe he was a pole vaulter for U.C.B. in his undergraduate days.

Jerry Attaway's father was the Postmaster at Susanville and there's an interesting story about that; I'm sure he wouldn't mind my telling it. After Jerry recovered and after he seemed to get sufficiently well that he could be up and around, he still was having some problems with speech and with physical stamina, as he had had some temporary damage. As time went on at the Health Center where we watched him, he improved. This was in the fall, October or maybe the first of November. At Christmas time he decided to go home to Susanville, which is at a higher altitude. Up there, most of his symptoms returned and he couldn't speak very well, and he had a lot of problems because of the decrease in oxygen. So he came back down and spent Christmas here. That problem has subsequently resolved and he is now, or the last time I heard, was an assistant football coach at U.S.C. and doing very well. An interesting sequel to that story was that when he got married in Susanville, he wanted me to come to his wedding. I was due to go to a College Health meeting in Chicago on Sunday and his wedding was on Saturday. So I said, "Fine, my wife and I will fly up and I'll attend at least part of your wedding and then I'll fly back to Sacramento and catch my flight out to Chicago." So we flew up to Susanville and landed at the Susanville Airport. At that time the Susanville Airport was a very small strip with one little shanty-like building. Nobody was around, no other airplanes, no attendants, so I thought....maybe we missed the day, something is wrong. We tied the airplane down and walking around saw out in front of the little building a brand new Ford. I thought that was odd. I went over, the window was down, I looked in on the seat and there was a note. "Dr. Cooper" ...so I opened the door and there were the keys to the car. Can you imagine this day and age having a car sitting out at an airport with your name on it and the keys in it?

AID: You flew your own plane up there?

TYC: Yes. After the party was over and the reception was still going on, we had to leave and so they said, "Wave to us as you go by." So when we took off we buzzed the hall, saw them all wave and then came on back to Sacramento. Most of the ball team were up there and it was a fine occasion.

One other thing I think I should tell you about the defibrillator. At that time the boss of the campus, you know, was Emil Mrak who was very interested in this life-saving event and was very thankful that we were able to do this. He said, "It's sure great that you have equipment that can handle such things."

I said, "Emil, you know, this was just an old surplus thing and really it's not very good. I don't know if it's going to shock the person that uses it next time or not. We really should have better equipment."

He said, "Well, by God! You ought to get it!" So he furnished us with $5,000.00 and we bought some new defibrillating equipment which we still have.

AID: Are any of these portable so that ambulances can carry them?

TYC: We don't have any portable defibrillators. They do make them but the campus being as small as it is we have felt it never was that necessary to have one. We do have a portable resuscitator machine. The ambulance picks that up and takes it to all the football games and it is available for them to use as well as for us to use here in our facility. We have developed a 'crash cart' in the Health Center and the defibrillator is sitting on it, so it is portable and can be rolled all over the building. All we have to do is just plug it into the wall and it can be used in any room. That's part of our emergency drill so that we're well trained with its use.

There is one other thing that has to do with cardiac massage. I was discussing this with one of our cardiac consultants, Dr. Cam Ward, in Woodland one day. After you do something like this, you know, you wonder what you could have done a little differently. Cam said, "I'll give you some advice."

I said, "That's what I am asking for, what is it?"

He said, "I'd quit if I were you, quit while you're ahead."

AID: Now let's take the emergency of a student who had a bad bike accident; he staggers into the Health Center and passes out. On examination you find that he has a ruptured spleen, he is bleeding, he's got a broken arm, an eye injury, maybe a broken spine.

TYC: Some accident victims come by ambulance. The Student Health maintains an ambulance as part of our operating budget. It's housed at the Fire Department and the firemen are trained EMT personnel who respond to the ambulance call, either on a dispatch from us or on a dispatch by a phone call directly to them or from the police. We've established the policy that we would like to have the call first and then dispatch the ambulance because many times ambulances are called for transportation purposes when an ambulance really isn't needed. It's an expensive type of transportation. But also, it gives us the opportunity to be aware of the situation so that we may better prepare ourselves to receive the patient. In addition to that the EMT boys operate the ambulance. When we set it up as a requirement, we didn't have EMTs available over there. So we designed a program in the Health Center which is on-going in which we train EMT students, whether they be firemen or anybody who wants to take the EMT course for certification. The class is given two quarters, the first and third quarters of the year.

AID: What do the letters stand for?

TYC: Emergency Medical Technician. And there is EMT-I and EMT-II. The EMT-IIs are now being used in some of the bigger ambulance company areas and they give external cardiac massage, they carry the defibrillators and they administer medications. They are really super-trained emergency people. The EMT-Is are also highly trained and for our purposes here are quite adequate in handling emergencies. We're close by and they don't have medical need to administer at a distance where there are no physicians or nurses available to assist them. Here on the campus, they can radio us in the hospital to talk about the emergency and we can always go to the scene very quickly if necessary. In some of the far outlying areas an EMT-II really has to do a lot of heroic work.

But anyway, specifically about your case; if I tell you of a similar case that actually happened, you would see how the Health Service functions. This student riding a bicycle was involved in a minor accident and he fell, apparently striking his side on the curb. He felt pain, of course, tried to shake it off, got up and walked back to his dorm. He began to feel rather woozy and his pain got worse so he decided he'd come to the Health Center. He walked over to the Health Center and as he entered the front door, he collapsed. One of the nurses who

TYC: saw him ran to his aid. She got one of our clinicians, Dr. Larkey, who happened to be here in the clinic and he immediately saw that the patient was in shock and was seriously injured. They put him on a gurney and called Dr. Brown who was completing one of his surgical clinics in the building. Dr. Brown agreed that the patient was in a critical situation, that he was bleeding profusely internally and would have to be operated on immediately. On the way to the operating room, at the wise decision of the surgeon and the attending physician, they did an intravenous pyelogram to ascertain if there was any damage to the patient's kidney system and lo and behold, the left kidney was found to be ruptured from the aorta and taking no dye. So they knew that he had ruptured it off of his aorta. They immediately went on into surgery, calling for the lab to set up blood and calling for Dr. Sam Houston, our chief urology consultant who is in Woodland, to come down and assist. Three hours later and seven units of blood transferred, the boy was doing well and moved to the recovery room.

Several very interesting things happened that made this a successful venture as far as this boy's life was concerned. First of all, the decision was made to operate on him and to care for him here because the facilities were available and he was in such an extreme situation. After it was all over, it was very evident that that was the wise decision because of the amount of blood loss that he had. In no way would he have survived a trip even as far as the Davis Community Hospital. The other fortunate thing that happened was that the anesthesiologist was just finishing a case here, so he was readily available and was able to assist in the heroic measures to get this boy oxygenated and get his blood started as well as giving the anesthesia. Another fortunate thing happened with this young lad. We have a blood bank here in the facility which we then did not normally stock. The need for using blood in our facility is not very frequent so we had an arrangement that if we are going to do a procedure which needed a blood transfusion, we ordered the blood ahead of time and stored it in our blood bank. That was standard procedure. Normally if we have an emergency, we call the Sacramento Blood Bank after typing the patient and the highway patrol will bring us the blood in a Code-3 manner. This particular day, fortunately, Davis Community Hospital Blood Bank was inoperable and they asked if we could store their blood for them until they could get their refrigerator fixed. So we had all of the blood from Davis Community in our refrigerator and it was readily available and saved at least a half-hour's time in getting blood to the facility. Well, the long and short of this case was that with all of the chips falling into place, the boy was operated on. It was found that he had damaged his spleen severely and had ruptured the main arterial supply to

TYC: his kidney, necessitating major exploration of his abdomen with the removal of his kidney and his spleen and transfusion of seven pints of blood, a tedious business of intensive care, recovery and then prolonged hospitalization. He was able to walk out of the facility and returned to school full time. We tell this story to those people who are asked to make major decisions in support of the Health Service facility, not for any personal credit for staff at the Health Center. By the campus decision to have such a facility available, we have demonstrated it can function in very serious situations and save lives that otherwise would not be saved. As far as I'm concerned, there is no dollar value that you can put on such a situation. I'm sure the parents and the boy are very grateful that the Davis campus does have such a health service.

AID: How is the emergency room equipped?

TYC: In the emergency room we have equipment for handling of cardiac emergencies including the monitor, defibrillator and automatic writeout EKG equipment. We have a self-automatic external cardiac massage unit which we can use for prolonged cardiac massage. We have gastric lavage equipment for the poison cases and we have all the rest of the equipment needed for intravenous therapy, for controlling hemorrhage and shock, and we have a very extensive minipharmacy in the emergency room which houses a restrictive number of specific medications that might be needed. For example, if somebody comes in, in shock from a bee sting, the adrenalin is right there. Incidentally, this is a cooperative effort between the emergency service and the pharmacy because the pharmacy has the responsibility to keep that unit stocked. It also has the responsibility for drug security, so we have various tricks such as all the drawers have a seal on them and if that seal is broken, indicating that that drawer has been used, then there must be a record inside of what happened to that medication. The operating room supervisor and emergency room supervisor responsibility includes the inspection of the drug drawers every day to see that there are no broken seals, which insures that all of those drugs are there. In addition, the pharmacists periodically inspect all of these drawers and replace any drugs that may be outdated. We have intubation equipment, intravenous equipment, interthoracic equipment, intra-abdominal equipment and we can manage any problems of hemorrhage or air or whatever might be present.

AID: What procedures are set up for example if someone was DOA (Dead on arrival)?

TYC: If a patient is being brought to the Health Center by ambulance, we are aware of this by the fact that we are communicating with

TYC: the ambulance by radio en route. If the patient is an extremist, as you say a DOA, we will first of all examine the patient immediately and proceed in life-saving measures if there is any question as to whether the patient is totally gone or not. We would immediately start intravenous therapy. We would institute airway and ventillation procedures and we would start cardiac resuscitation if that were the problem or assess the patient as to whether there is serious trauma and there may be hemorrhage somewhere; whatever procedure is necessary would be instituted. If a person is obviously DOA and has died of a coronary and you institute measures and you fail to resuscitate him, the measures are discontinued after it is determined that there is no possibility of survival. The patient then becomes a coroner's case and the coroner is notified. He comes promptly and investigates the circumstances.

AID: Are there any organ banks here?

TYC: We have none here. They have some at the University Med Center in Sacramento but we don't have much need to use those with the students. In some of the community areas, we have patients who have given permission ahead of time to use their organs. The kidney bank at the Med Center is very active in handling kidney transplants.

AID: What would you do for a third degree burn?

TYC: The extent of the burn would determine what type and where the treatment should be given. In a third degree burn of a small area the surgeon would be called and it would be handled by the surgical service with one of the plastic surgeons, Dr. Seery or Dr. Baker who are our consulting staff, to come in and assist as the treatment progresses, for skin grafting or other plastic procedures that might be needed. If we had a severe third degree burn involving a large percentage of the body, we have a mechanism established for transferring these patients to the Burn Center at the University Medical Center in Sacramento. The Director of the Burn Center, Dr. Bob Demling, has organized a very extensive program and is doing marvelous work in the treatment of burns. At today's medical staff meeting, we had Dr. Demling as the speaker and all of our medical staff heard what he has done over there and how we can utilize those services if we need to. So, if we had somebody that had a burn that required the Burn Center, we would call our ambulance and having given the support service, starting the intravenous fluids, covering the wounds with the appropriate material, would transfer him there. Depending on the severity, the patient would be accompanied by the ambulance attendants plus a nurse or even one of the physicians would go along to help transfer the patient.

TYC: Speaking of the physician going along reminds me of an incident that occurred. One day a boy rushed in here through the back door and said his roommate had just collapsed in Regan Hall. He heard his roommate trying to vomit and then saw him fall on the floor. So, the nurse grabbed the gurney and, accompanied by one of the doctors, the two of them went over to Regan Hall. They brought the patient back to the emergency room and began examining him. I walked by at that time so I got involved in the case and saw that the patient was unconscious and in an extreme situation. We called Dr. Petersen, the internist, because it was a difficult decision initially as to whether this may have been a drug overdose or some other problem. Before Dr. Petersen arrived it became apparent that it was a severe cerebral problem as one eye began to deviate and one pupil began to enlarge. So when Dr. Petersen came, he confirmed this and we started intravenous therapy. We called the emergency room at the neurosurgical service in the University Med Center and Dr. Petersen and I rode the ambulance while we maintained this student with oxygen and respiratory support. The neurosurgeon was waiting for us at the ambulance entrance. We took the patient into x-ray where a CAT scan was performed. It showed that he had an intraventricular hemorrhage. (That's a cerebral hemorrhage.) He was immediately taken to surgery and within about six hours from the time he collapsed here, all this had happened and he was out of the operating room and in the recovery room. How valuable is a CAT scan? How valuable is an ambulance? The student is back at school. He had a congenital malformation, a congenital aneurysm in his brain that ruptured.

AID: Had he been 30 minutes away from the hospital, he'd be dead?

TYC: True.

AID: Just as a matter of interest, in the fall of 1977, the Aggie ran an article on the types of accidents that predominate and it said that bike accidents involving females age 21 were in the highest category and in all-over bike accidents, 61% occurred to women. The type of accident is 26% bike-to-bike, 10% is bike vs car, 17% is bike vs stationary object and 25% is skidding on the wet pavement.

TYC: I'm sure that we have contributed to the accumulation of those statistics. We have an ongoing program with Environmental Health and Safety and the campus police in reporting injuries of this sort for the constructive aspect of what can be done in prevention. The current routine on a bike accident is that the patient is given a form to complete and drop in the campus mail to Environmental Health and Safety. The form identified where the accident occurred, what were the circumstances involved etc. etc.

TYC: From these statistics the police are able to generate many improvements in the handling of bicycle traffic. They now have the circle intersections and the bike tunnel that goes under La Rue and another under the railroad crossing, as examples.

AID: We talked about a flood that didn't involve medical aid as much as it did the need for shelter. Suppose a county-wide disaster occurred, please explain the county-wide disaster plan.

TYC: In the event of a county-wide disaster, the hospitals in the county all participate, including Cowell Hospital and Student Health Center. We have an established, practiced and rehearsed disaster plan which we can immediately put into operation in the event of either a campus or a county-wide disaster. We have at our disposal a radio network which allows us to be in communication with the other hospitals and ambulances in the area. We have a coordinated plan of utilizing other facilities on the campus in case of such a disaster, as illustrated in our previous conversation about the flood and the flu epidemic. The plan is periodically reviewed. We conduct mock drills, both paper-type drills in-house, physical drills and we participate in county-wide drills. Recently we participated in one in which there was a mock auto/school bus accident with the victims being live people with simulated injuries. We received a number of those injuries and went through the mechanism of identifying and distributing them throughout our hospital for appropriate care. In this last disaster drill we had a problem of contamination from chemicals and it was an educational experience for us.

ORIGINS AND GROWTH OF THE STUDENT HEALTH CENTER

AID: Please describe the origins of the Health Service here.

TYC: The first Health Service was a small facility in East Hall, where the original Health Service building on the U.C. campus was located. This Health Service was started many years ago when the campus first developed. The original concept of the Health Service was that it would provide a minor type of health care to students and assist them in their health problems so that indirectly we would contribute to their well being and ability to continue as students, thus assisting the entire academic program. In addition, we've always had a Public Health responsibility to see that the students were free of infectious disease and were of no hazard to the campus population.

The physician who originally set up this program was Dr. W. E. Bates who was practicing here in Davis for a number of years. When my father came to Davis in 1923, he associated with him and subsequently became involved in the Health Service activity. Dr. Bates died in 1934, and when he died, my father, Dr. Thomas E. Cooper who was a visiting physician from 1925 to 1947, became active in the management of the Health Service program. I remember a nurse by the name of Mae McCabe who lived in the Health Service building and was the sole provider for most of the care to the students. She provided them with not only counseling and medical assistance but was also a friend and advisor. The Health Service provided only infirmary service and patients with flu or other minor ailments could be kept for a while; whose who required hospitalization for surgery and more serious illnesses were transferred to the Woodland Clinic Hospital where they were seen by either the internist or the surgeon, or whoever was needed for their care. There was a close liaison between the two organizations at that time, as Homer Woolsey, the chief surgeon at the Woodland Clinic Group, was also the Director of the Health Service (1934-1956). He was a very fine gentleman, a clinical professor of surgery at the University of California Medical School in San Francisco and thus was familiar with and associated with the University

TYC: of California. Even though he was Director of the Health Service, he was not really in residence here, so most of the administration and most of the resident program was provided by my father, Thomas E. Cooper, M.D.

AID: What was his title? Visiting physician?

TYC: Yes, I believe that's what it was. The family came to Davis in 1923 and when Dr. Bates died, Dad was then more or less running the Health Service with Dr. Woolsey. Dr. Woolsey, as I recall, was always involved somewhat in the budget and in the overall policy of the Health Center, although not in the actual operation.

After graduation from medical school, I interned in the U.S. Naval Hospital in Mare Island and served time in the Navy, as it was the end of World War II.

AID: What medical school?

TYC: I graduated from the University of California in San Francisco in 1944 and then interned at Mare Island Naval Hospital. I was serving as a surgical resident when my father passed away in December of 1947, and the decision was made by me and my wife that rather than going ahead with the surgical residency program, I would come back and take over his practice here in Davis, or at least become part of his practice here in Davis.

After Dr. Bates died, Dad had taken a young man in practice with him by the name of Bill Robbins who was the son of W. W. Robbins, a professor here on campus in Botany. During the war, Bill left the practice and served as a medical officer in the Army and when the war was over he decided he liked health service work after his experience of working with Dad and Dr. Woolsey at the University, so he set up the Health Service on the Santa Barbara campus. He was the first Director of the Santa Barbara campus Health Service and the originator of that program. In many respects their program was copied after the service here with which he was familiar. When that decision was made, Dad then sought additional help to replace Bill and Dr. Charles McKinney joined him in practice. When Dad's passing occurred, I came back to Davis and Chuck McKinney and I became partners and the two of us carried on the medical activity. We likewise were active in the campus health service program and were instrumental in keeping this program going. In those days, I would come to the Health Center in the morning for an hour and Dr. McKinney would come to the Health Center for an hour in the afternoon. Mary Jane Perkins, R.N. (and later Faye Baker, R.N.) would care for the students during the day and would call us for

TYC: emergencies and for assistance. When Dr. Woolsey became ill and was unable to continue, I received the appointment as Director of this program in 1956, and I have enjoyed being Director and managing the program with the campus administration's assistance ever since.

Dr. Woolsey lived until July of 1979. But he had a stroke many years ago and I remember vividly when it happened because in private practice we used the Woodland Clinic Hospital for our hospital patients. One Sunday morning I was making rounds on my patients and Dr. Woolsey and I were chit-chatting, walking down the hall together and all of a sudden he fell against the wall and staggered and I caught him and assisted him into a chair; that was the last day that he practiced. That's when the stroke hit him, that Sunday morning, I remember vividly.

AID: And he was never able to resume any type of medical practice again?

TYC: He went back into some consultative work but he was never able to operate again because of the stroke; he was partially paralyzed. And, of course, that was a tremendous tragedy because he wasn't old and it was, I don't know, probably 15 or more years from that time until he died.

You asked me about the organization of the Health Service and the people involved and I talked mostly about the doctors and the Director. Let's go back to the basic philosophy of the Health Service, which was, in its original conception, I believe, way back in 1906, that the Health Service was designed to assist the students in their academic pursuits and to maintain public health. The registration fee was the only source of its funding and the original registration fee was designed for providing health service and the athletic program on the various campuses. And later on as we talk about the funding of the current program we will get into understanding how that philosophy has changed considerably over a number of years as the campuses have grown in size and style and direction.

AID: Knowles Ryerson was, as you know, the chief campus officer here before the war for many years. Dean Ryerson tells the story in his oral history memoir when the infirmary was in the north half of East Hall, the dining room in the other half. He said the infirmary beds were a fire trap in the upstairs wooden building; they were hot in the summer and the fans didn't help very much. In 1937, he said, your father ordered out a mentally upset former student who had been turned down by a Health Center nurse and was threatening her. This unstable student pulled a gun on the

AID: nurse and at various times on your father and Dean Ryerson. Do you recall this at all? In 1937?

TYC: No, I was only 15 years old.

AID: The disturbed ex-student continued to appear in the infirmary for quite some time and the nurse wouldn't report it to the police because she didn't want to get him into trouble. Ryerson said they called Berkeley, which gave them no police protection funds, and so what they did was transfer the nurse, and the student disappeared. Berkeley finally did send a detective to Davis which had no police force at that time.

The Woodland Clinic consulting staff to the infirmary included Dr. Frederick C. Boast, an orthopedist, and Dr. Howard Brown, a neurosurgeon.

TYC: Right, and they were professors at the University of California, San Francisco. I know them because they were my professors when I was a student there. They were the consultants in title but actually in direct everyday activities they had little or no role to play.

AID: Now, would you tell about planning for the first and subsequent buildings of the Health Center: the reason for locating it where it is, square footage, floor plan, all of the details that you can recall?

TYC: The original building as noted in Ryerson's memoirs was in the north half of East Hall. That building was moved to the location east of North Hall where it served the same function for several years. When I returned to Davis in 1948, this is where the infirmary was and Dr. McKinney and I provided the services as the two physicians in that facility. Dr. Woolsey was still the Director and McKinney and I would come, as I have indicated, one hour in the morning and one hour in the afternoon and take care of the health service program. The decision was made by Dr. Woolsey and ourselves, along with Knowles Ryerson, that we should try to develop a new Health Center because of the wood structure, the poor location, the inadequate facilities that existed, as well as the liability and the danger due to the fire hazard. Through the administration's efforts, funds were obtained from the State of California to build the Health Center in its present location. I understand that the funds used for it came out of race track profits.

AID: In 1950 according to newspaper accounts, $300,000 for the Health Center came from the Fair and Exposition fund and $400,000 from statewide U.C.

TYC: With that $700,000 the original building on this present site was constructed. It consisted of an outpatient department with six cubicles, a small lab, a small x-ray facility, operating rooms and six inpatient bedrooms.

AID: My records say it had 12,673 square feet. There were 3,000 students at that time. As you said, an outpatient department dispensary, x-ray and lab, physical therapy, emergency and minor surgery. The hospital had six double rooms and a four bed ward for a total of 16 beds.

The Aggie reported that in the fiscal year of '57-'58 there were 24,913 outpatient visits, 2,649 patient days and 837 patients.

TYC: We've got over 95,000 visits in our outpatient service now.

AID: There was a temporary trailer annex with five double rooms in it?

TYC: Not initially. As time went on and the student enrollment increased, we found that we had inadequate inpatient space so we worked with the campus administration and obtained a double trailer addition which we attached to the back door and, as I recall, it had seven additional bedrooms and one toilet facility. The annex was attached to the back of the building by a covered walkway and so it actually served as a second ward of the hospital area. Recognizing that this was a need because of the expanded student population and that it was only temporary, steps were taken very soon to see if we couldn't remove the trailers and get a permanent addition. An analysis was made to determine the number of beds and the space that we would need for an outpatient area for an 18,000 projected student population.

From the memoir of Chancellor Emeritus Emil Mrak:

"Bill" W. W. Monahan, whom I knew casually in college, became an assistant to President Kerr. It so happened that Bill was very friendly with the Cowell Foundation administrators. I got to talking with him about the need to expand the Student Health Center and - not generally known - he was the one who really got the money for us. When he told me, "I got your hospital for you," I couldn't say enough to thank him."

Working with the campus architect and the administration we were able to obtain from the S. H. Cowell Foundation some funds to finance this addition. This addition was then financed and constructed, the trailers were removed and the bed capacity

TYC: for the Cowell Health Center was increased to 48 beds with a permanent structure. The outpatient department was doubled in capacity but was not constructed to the estimated need of 18,000 students because the funds that we obtained from Cowell did not permit us to do the whole project. The decision was to go ahead and complete the inpatient project and leave the outpatient project only partially completed until a later date and then find some funds at that time because it was estimated that it would be easier to add additional 2 x 4 sheet rock construction than the major concrete, multiplumbing and complicated bed space required for inpatient service. That addition was completed and the dedication was held on May 7, 1967. Max Thelen, President of the trustees of the S. H. Cowell Foundation, was our guest speaker at the dedication. It was through his generosity that the funds were generated. Other officers of the Foundation include E. H. Connick, Vice-President and General Manager, and I. W. Hellman, Director.

AID: According to available data, the remodeled building provided a single story inpatient wing on the south side and a two-story outpatient wing on the north side. The inpatient wing tripled the bed space to 46 (from 16.) John Funk was the architect. The inpatient wing had 9,054 square feet. The outpatient two-story wing had 11,486 square feet, sufficient for 12,000 students. The outpatient wing had 12 examining rooms, 8 physician conference rooms, emergency clinic area, pharmacy and reception area.

TYC: Let's go back to that statement about the outpatient wing. I think it is important to show that the number of square feet in the examining rooms in the outpatient area provided care for how many students?

AID: 12,000.

TYC: In reality of operation, we are experiencing the deficiency of space in the outpatient department now that we are up to 18,000 students. Another interesting thing is that the original projections for the needs of the bed space on a projected population of 18,000 has changed in the last few years. The requirements for inpatient care per student has decreased because of the change in style of medical treatment. For example, the increased use of antibiotics shortens the hospitalization time for many severe infections. The habit of come-and-go surgery eliminates many hospital day beds for surgical procedures. For example, tonsillectomies that are done now - the student comes in in the morning, has his tonsils out, and goes home in the evening. Previously, he used to come in for two to three days. Now we do many things on a come-and-go basis. So the actual needs for hospital beds on a per thousand basis is less, whether in the student population or general population.

TYC: Another interesting thing that I recall in regard to the funding of this addition was a letter from the Foundation saying that they would be happy to give us $750,000 with the provision that it be used to build a structure to provide medical care for the students and that it would be called Cowell Health Center. It took me 10 seconds to answer that letter.

AID: What was their interest in health, do you know?

TYC: The Cowell people, as I understand it, made their money as large land holders and farmers. All of the land under the bypass out here was Cowell ranch for years and years. In fact, I had a patient in my private practice, Galvino Peña, a Mexican, who used to manage most of this acreage. A tremendously nice guy, he died just recently, over 90 years old.

AID: Let's go back for a minute, before the addition, to the original facility and talk a little about personnel. (I learned this from Faye Baker.) First, as far as secretaries were concerned, she said that Eve Bradley had replaced Virginia Bryce about that time and that Polly Welch came later, about 1961.

TYC: Mae McCabe was the original nurse in the Health Center with Dr. Bates and my father. She stayed there for many years. Faye Baker, like Mae McCabe, lived in the Health Center for many years. As the Health Service grew, even in the old location, additional people were hired, additional nurses to help with the increased load, and Virginia Bryce was the first non-nurse employee that was hired; she came in as a secretary. I don't remember exactly what her title was but she was there to help with administration. When Virginia Bryce retired, she was replaced by Eve Bradley who was here for a great number of years until she retired in 1972 and then she was replaced by Polly Welch, who had been here on the staff under Eve Bradley's direction.

The nursing staff started, as I said, with one and gradually increased to two or three and now we have somewhere over 30 FTE registered nurses.

AID: My notes say that Mae McCabe was the nurse in charge from 1919 to 1943. Helen Sumner, who is still in Davis, helped Mae and Mae never returned after the war. The next nurse was Ethel Schrode and then Mary Jane Perkins whose husband was in the first Vet-Med class. They were there when Faye Baker came. Ethel left soon for Santa Barbara. Mary Jane stayed on for about six years.

TYC: I mentioned that Bill Robbins returned after the war and decided he wouldn't go back into practice here but would go down and be the Director of the Health Service at U.C. Santa Barbara, so when he went Ethel Schrode went with him.

AID: Faye remembered that in East Hall downstairs there was a small kitchen but they got their food trays from the cafeteria: Hensel Herrig, who is the former husband of Lorena Herrig, was the campus Food Service manager. Downstairs there was a small waiting room which opened into the treatment room. There was one desk, a file (they used 5 x 7 student cards then), treatment chair, autoclave and sterilizer. A smaller room off the treatment room was the doctor's office with an examining table. On the same floor there were 4 beds in one room, 2 beds in another and 20 beds upstairs in about 10 rooms. Faye's apartment on the second floor provided a bedroom, bath and livingroom; she used the livingroom to work on the plans for the new building. Dr. John H. Jones came in 1952. Dr. Cronin helped with physicals of the entering classes as also did Dr. Ruth Storer. And now you don't give physicals anymore.

TYC: We continued the entrance physical examination program until approximately four years ago at which time financial constraints required us to shift this to the family doctor at home, so we still recommend a physical exam and ask students to bring the completed physical exam form from their physician.

AID: Is there a TB skin test that is required?

TYC: Yes, part of the entrance requirement is that students have a tuberculin clearance and there is a special area on the medical history form that is to be filled in by their family physician prior to coming here noting they have either had a tuberculin skin test that is negative and/or a chest x-ray and that they have been cleared by that means.

AID: And a chest x-ray?

TYC: If the tuberculin skin test is negative, that is all that's required. If the skin test was positive then we would require a chest x-ray in addition or a negative chest x-ray by itself would be acceptable. In spite of the fact we put forms in their registration packet and in spite of the fact that we say TB clearance is a condition of registration, we have a fair number who come without it. We oblige them by putting an incomplete on their record or immediately have them go to the clinic and have either a chest x-ray or tuberculin skin test and charge them for it.

AID: And I think you said medical exam is required of foreign students?

TYC: That's correct. We give complete physical exams to foreign students and certain other students who have a particular exposure problem such as the medical and the veterinary students. The medical students' exams are done at the start of the initial

TYC: quarter of the medical school and members of the medical school faculty assist us in doing those examinations at the Health Center. The other big load that we have in doing the physicals is in the intercollegiate athletic program. We give a physical examination to all participants, male and female, in intercollegiate athletics.

AID: Who pays for that?

TYC: The cost is built into our operating budget as part of the Health Center budget. We have done this for years and we have continued to do it. No students may participate in any of the intercollegiate athletic programs until they have been cleared; we have a control mechanism working with the coaches and trainers in the various programs so that if athletes don't have clearance, they are not allowed to practice or participate. This is true for all of the programs, football, basketball, track, tennis, golf, whatever, as long as it is an official University intercollegiate program. In addition, we do physical exams for enrollees in certain courses that expose individuals to undue hazard, in case of possible adverse health problem. I'm thinking mainly of a recreational course given in the P.E. department - Scuba Diving 129. We require all people enrolled in that program to have a physical examination because of the adverse consequences of perforated ears or heart problems if they are going to submerge.

AID: There was a female janitor whose name I don't have; the first male janitor was Walter Stoner and he was replaced by Clyde Manker, and later Dick Maier.

TYC: The present head custodian is Frank Yelich but Aaron Bobb was the Head Custodian in between Maier and Yelich. And, the custodial staff now has five or six FTE since the original one woman.

AID: Now, this location -- you had, I think, a good deal to do with the selection of this site?

TYC: This location? Faye Baker, Dr. McKinney, Dr. Woolsey and I worked with architect John Funk and with the campus architect to design this facility. Many of the ideas and operational features of this building are those that were submitted by Dr. McKinney and me, as we were the ones who were providing most of the service here.

AID: But I mean, why right here? And, also, can you describe this site before the building was here? Was there a signal corps facility right across the street? There were still old signal corps buildings.

TYC: I had forgotten about that. Yes, across the street were some temporary buildings that were put up during the war that were used for the signal corps and I'm trying to remember what it was. We used some of those prior to the completion of this building and then after the building was completed, we still used some for some ancillary services -- health and safety and others. I can't remember when they were moved and relocated in other areas of the campus. As you know, environmental health and safety is now down on the creek by the bridge in those little shingled structures. Fred Cooper who was head Environmental Safety officer on the campus for a number of years retained an office in the Health Service facility until he became the campus Risk Management officer eight or ten years ago and he moved to Mrak Hall.

AID: You wanted the location here because it is central to athletics, to dorms and so on.

TYC: That is correct.

AID: And, as it turned out, it is about as central as you can get.

TYC: The expansion has gone all around it except to the north and we have the dorms there.

AID: But were these dorms on the north side here before this building?

TYC: We knew they were coming and we wanted to locate as close as we could to the living quarters. Two dorms were here and then Regan Hall came after us. Of course Rec Hall has come and is just a hop, skip and jump across the back from us. The athletic field and the intramural field are right across the street so it has worked out to be very well located.

AID: In the original facility, Faye Baker was in the office that Bill Waid is now in . . .

TYC: Yes, that's correct. Later, Fred Cooper and the Environmental Health and Safety staff occupied that office and the nursing office was relocated to the north wing of the hospital. Much later, the nursing superintendent's office was moved to the outpatient department (after the addition) where it remains today.

AID: Faye Baker did the purchasing of nursing supplies and approved invoices. She hired nursing personnel and was responsible for the nursing part of the budget, including the kitchen. According to my information, in 1956 she was in charge of eleven R.N.'s. Gertrude Bailey was the first cook. Before that they got food trays from Beckett and Hughes dorms, with Hensel Herrig still in charge.

TYC: Yes, the food service has gone through a state of evolution. In the old facility, the food service was right next door so it was a very simple thing for us to obtain food on trays for the inpatients. When we moved over here, of course, we were separated physically from the food service but still tried for awhile to use the services. However, because of the problem of transportation and the increased numbers of inpatients needing different types of diets and special types of diet service, we decided it was more efficient and better medical care if we instituted our own diet kitchen, which we did and which we have continued to do. We now have a part-time dietitian who helps structure the types of diets. The current kitchen staff is made up of four people with a total FTE of less than three. They prepare the food for all the inpatient areas and provide the same food facilities for purchase by the on duty staff.

To name a few retirees: Walter Stoner is retired; he was the first custodian in this building; Beulah Genz, a retired nurse; Getrude Bailey, retired head cook; Faye Baker, retired nurse; Walt Prescott, retired physician; Gerry English, retired receptionist; Helen Sumner, retired R.N.; Eve Bradley, retired administrative assistant and secretary; Edmund E. Simpson, retired physician; Robert O'Malley, retired administrator, and Ella "Mac" Andrews, retired nurse; Abe Berman, retired physician. He just retired this last year. There are a lot of others who have retired or resigned because, as the campus grew and we had an increased number of nursing personnel, the majority of our nursing personnel came from student wives and, of course, their stay was limited and then they moved on with their husbands.

AID: I was told that the quality of their nursing and education is very high.

TYC: Exceptionally high. Most of the nurses not only have their R.N. and bachelor's degree; some of them have their master's degree.

AID: This shovel that's in your office. Is that the shovel that turned the ground for this building?

TYC: That shovel is there because on one of our family-jeep trips that we take periodically during the summer in the high Sierras, I found it. I thought, well, it's an old, old shovel that belonged to one of the 49er's probably, so I brought it down to the office with no handle on it, just the shovel part. One of the employees decided that maybe it should be fixed up, so one day, lo and behold, it appeared on the scene with a new handle. He said, "Now you can take it home and use it as a shovel."

"No, I think I'll leave it here because maybe we'll need it for you know what. It gets deep in here once in awhile!"

TYC: Incidentally, to better describe this activity to the campus community and the general public, the name was officially changed to COWELL HOSPITAL AND STUDENT HEALTH CENTER on December 31, 1973. When dealing with third-party health insurance carriers, other health providers, reporting agencies and governmental authorities, the absence of the word "hospital" in our name had frequently raised questions and led to time-consuming explanations which now are avoided by this name change. The Health Center has more categorically divided its functions into a hospital and other health services under the prepaid health plan which commenced in the fall of 1973; the trend has been more emphatically in this direction.

THE MEDICAL SERVICE

TYC: As time went on and the need for additional physicians grew, it became apparent that we didn't need only general clinicians, we needed some specialty consultants. As I indicated previously, Woodland Clinic was the chief source for our referrals for consultations. If the patient had a problem that was of a more urgent nature or if it were a bona fide emergency, we would drive them in our car to Woodland. We did that initially because there was no ambulance service. As the need grew for additional transportation, the ambulance service in the community developed. Stan Smith came in as a mortician and he ran an ambulance for a number of years so we used that to transport patients to Woodland. We also maintained a stationwagon on the campus which we used as a pseudoambulance to transport students back and forth.

However, as the community grew, there were in the community the specialty physicians whom we gradually utilized for consultations. The first one that came to Davis who fulfilled our criteria was Dr. David E. Brown who is a surgeon here. We gradually utilized his surgical ability also for the care of surgical problems. Later Dr. Stice came in as an OB-Gyn specialist and he brought Dr. Bleasdell and then Dr. Schimmel. In time, other surgeons and orthopedists came. So as the community grew, if we needed a consultation, we began to think why send patients out of town, why not just have the specialist come here? It soon became apparent that this was a routine that improved our total health program.

The main reason that we moved to do our own surgery in this facility was because we had the facilities here and they were not being used; the Cowell addition was built with that in mind as part of the long-term plan. Secondly, we found that we could, by having anesthesiologists come here, keep two other physicians from going to another hospital to do the work. We also found that since we had our own operating room, by equipping it we could amortize the cost over the years and we would actually have less expense by doing our surgical cases. An appendectomy would cost less if we did it in our facility than if we paid the full going price in Woodland, Sacramento or wherever. So, over

TYC: the years as other specialists have come into the community and other services are available, we have expanded the capabilities of the operating room. For example, there is a tremendous amount of orthopedic surgery done here, probably more than any other type of surgery. Emergency surgery including the appendectomies and tumors, elective surgery and kidney problems are handled here. We also do a large amount of GYN surgery. In that context, we see a fair number of bleeding problems in the student population which are cared for here. We do not do therapeutic abortions here though the facility is adequate; in fact, it is probably more adequate than some of the places where therapeutic abortions are done, because they are not all done in hospitals as you know.

AID: What surgical procedures can be performed here and which ones can not be performed?

TYC: By design, the majority of the surgical procedures that are performed are those of abdominal and orthopedic type. We have the capability and have, under emergency situations, performed chest cases and even on a rare case a neurosurgical procedure involving the head. The specific case that comes to my mind was a student who had a bicycle accident and had an expanding hematoma in his brain. He was brought here and we examined him in the emergency room early in the morning. I called for Dr. Youmans, who wasn't available; but his assistant Guy Corkill was, and Guy lived in Davis. So I called Guy at home and told him the problem and that we might want to send the patient to the University Med Center. He said, "Well, it sounds like we better look at him before that." Guy came right over and said, "If you are going to save this boy's life, we must do something now. Take him to the operating room." We grabbed some sterile emergency neurosurgical tools, namely a trephine instrument, which is a bit that drills a hole, and he did an emergency trephine on this boy and relieved the pressure. We bandaged him, let him wake up and then transferred him over to Sacramento for continued care.

But we don't do those types of procedures if we have a choice, because there are so many complications that may develop requiring so much special equipment and the need in our student population isn't that great. That neurosurgical case that I discussed earlier, the renal artery laceration from the bike accident which required major abdominal surgery by the urologist as well as the general surgeon, involving blood transfusions, indicates that the operating room is capable of handling this type of service on an emergency basis. Of the routine cases though, the majority are appendectomies, gynecological procedures, orthopedic -- lots of orthopedic cases, numerous knee operations, ligament repairs and so forth. It is now also an accepted procedure to do laminectomies for people with herniated discs. Neurosurgeons from Woodland or Sacramento come here and do the procedure.

AID: Suppose that a major surgery is being performed here and something goes wrong. What kind of back-up facilities are available?

TYC: If we have an emergency situation and we have a severe problem that does develop, then we have the resources of all of the surrounding community to call upon for assistance. The anesthesia team that provides all of the anesthesia in Yolo County is active in this facility and the equipment that is used for anesthesia is their design that they use every day so it is readily available for any type of problem of respiratory distress. If we have a student or patient that is brought to the emergency room because of an airway obstruction, either an inhalation of a foreign body or cardiac arrest, we often will summon the anesthesiologist who will come and do the intubating and the respiration support that is necessary. If we have a procedure underway and something is found that was not anticipated, such as a gynecologist doing a large ovarian tumor removal, who finds that the ureter is going to require some special urological procedure, then they merely tell the surgical supervisor to call one of the three urologists who are on the consulting staff. She tells them what the problem is and asks whichever one is available to come down and assist. He can be here within ten minutes, scrub-in and take care of the problem. That back-up pretty much exists in all areas. Or, if in an orthopedic procedure of a badly traumatized knee, they open up the knee and start taking care of the fracture and find there is a laceration of one of the major vessels, one of the vascular surgeons would be called in to assist. So the mechanism is here for handling the types of emergencies that we might be faced with. These specialists are available to the Student Health Service on a 24-hour basis through their own practices in town for emergency consultation. We can call anytime, day or night, to Dr. Brown's office and either he or Dr. Wisner will be available to come here on a moment's notice for an emergency consultation or to perform emergency surgery. The same is true in the other specialty areas that I mentioned. Now, why I say that this is an arrangement that has kept this Health Service alive, is that in the presence of increasing costs and inflation, these specialists do not receive compensation for their services on a retainer basis at anywhere near what one would have to pay on the open market. Throughout the years because they have felt that they were part of the Health Service, they do this at an honorarium-type of stipend to maintain the quality of the Health Service program. Granted that the surgeons, the orthopedists and the others, if they are called to serve on a surgical problem that is hospitalized, they may obtain standard fees for providing that service. One of the chief examples is the head of our orthopedic department, Dr. Frank Boutin, who has practiced in Sacramento for years. He formerly was in the Woodland Clinic Medical Group. He left Woodland to establish his practice in Sacramento. Frank

TYC: comes over here every Monday afternoon when school is in session and works from 1:00 p.m. until 6, 7, or 8:00 p.m. at night, seeing 20 or 30 students. He is one of the busiest orthopedic surgeons in Sacramento and yet he gives up his time to come here to do his clinic for a very nominal fee. Another example, Dr. Yen, the neurosurgeon at the Woodland Clinic Group, was here just in the facility yesterday seeing a patient with a neck injury. So they travel all this distance to see a consultation for a few dollars and go back. It is this kind of dedication of our consulting staff and our general clinicians that make this program go. The minute we put this on a strict pay-as-you-go basis, we have wiped out the program. It would completely dissolve. And, I can't help but always think about it because I am so convinced that it is this attitude of the town-and-gown professional group that has maintained this program as it exists. As an aside, except for the last year or two, all of the physicians in the community have at one time or another been on the staff here and are still considered as consultants. Dr. Kennedy, for example, a general practitioner, and as you mentioned earlier in the history, Dr. Cronin and Dr. Ruth Storer, came over and helped do physical exams or they would come over if we had an epidemic. It has been a very unique town-and-gown relationship which I cherish and I think it is important to mention because I know the student/patients are unaware of this aspect of it. Just like we mentioned with our kidney problem patient, in a big emergency room in Sacramento these specialists are there all the time, do this everyday, but to have those medical skills here, when needed, is not something you can pay and structure for, it has to be available through the generosity of the consultant.

AID: Let's hope that as a result of this history this benefit will become better known and appreciated.

TYC: I hope so and I'm sure that also our medical colleagues do enjoy the relationship with the University, because the University is such a big part of the Davis community and many of their private patients as well as their friends are university people. In this regard, as members of this staff they are eligible for faculty club membership so there is a fringe benefit and a relationship that goes both ways. But nonetheless, these physicians are the main source of our success, the high quality of their immediate available service without a tremendous expense.

AID: There is always another surgeon who scrubs as assistant surgeon?

TYC: Oh yes, anytime a major surgical procedure is done. It is accepted procedure and a qualified M.D. assistant is required by the Joint Commission on Accreditation. We adhere very strictly to that policy here.

AID: If Dr. Brown were the surgeon, for example, who would be the qualified assistant?

TYC: One of the general clinicians usually. If it is a complicated case involving some procedure with which the general clinicians are not familiar and don't operate frequently with this type of case, Dr. Brown may have his partner, Dr. Wisner, come in and the two surgeons will operate. But the majority of the time, as in the private community, the assistants to the surgeons are the family physicians who refer the patients.

AID: What is the equipment in the operating room? I read from a list that you have a cardiopulmonary bypass pump, oxygenator, operating microscope, thermal control equipment, fracture table, roentgenographic x-ray including image intensifier, endoscopes, arthroscopes, craniotomy equipment, the defibrillator, pacemaker, pacemaker insertion, mechanical ventillator, monitoring equipment for vital signs.

TYC: In the operating room you listed a number of things we have and many of those things are in use all the time and many of them are not. The trephining equipment is there. The OB pack is there for delivering babies. The orthopedic table is there for taking care of hip fractures and some of the long bone fractures. We use it very rarely but nonetheless, when the emergency arises and the need is there, we have it. A lot of this equipment has been acquired over a number of years. We have scoping capabilities, the arthroscopes and the laparoscopes that we use for diagnostic procedures. The orthopedists use the arthroscope to look in the knee joints, which helps with their operative procedure. The laparoscope is used in abdominal procedures, frequently used by the gynecologists as well as the surgeons for exploring the abdomen through the laparoptic scope method rather than opening up the abdomen. It can save a surgical procedure sometimes. The problem with the scopes is that they are extremely expensive and the technology is developing so rapidly that one bought this year will probably be outdated in six months or a year. So as with many of the things in medicine that a small hospital occasionally needs, we have an arrangement with Davis Community Hospital that if they have a piece of equipment that we don't have, we may borrow it for use in a procedure, and vice versa. If they have a need for our arthroscope or our laparoscope, we will loan it to them. It works very nicely because the anesthesiologists who provide the service to Davis Community are the same ones who provide our service. The surgeons who operate at Davis Community are the ones who operate here and so the equipment and the service very seldom are used at the same time and are always used by the same persons so there isn't a problem of misuse of the equipment. Lending an expensive arthroscope or endoscope poses a serious risk (economically) of breakage if loaned indiscriminately.

AID: Is that also true of Woodland? Are your surgeons able to practice surgery at Woodland Hospital?

TYC: Yes, all of the surgeons that we have here have staff privileges at Cowell Hospital, Davis Community Hospital, Woodland Memorial Hospital and Yolo General Hospital, and all of them are clinical faculty at the Medical School. So they have teaching obligations at the Medical School as well as seeing private or county patients in the other hospitals. This also provides a community type of intermingling in working relationships that makes it easier to have a smooth procedure.

The structure of the Health Service physicians' staff with specialty consultation is important because I feel that it is the main item that keeps this health service at high quality, which enables it to survive in today's economic crunch better than what we see in other health services throughout the state and the nation. Our basic structure is that primary care is provided by the primary physician. There are now seven in number who provide this care.

AID: Name them please.

TYC: The Assistant Director in charge of Occupational Medicine who works part-time in Student Health is Dr. McKinney. The Associate Director in charge of the Outpatient Department is Dr. Megan Ryan. Then we have the general clinicians working with her: Dr. Ray Olson, Dr. George Ferris, Dr. Margaret Newmark, Dr. Joan Stek, Dr. William Corrigan, Dr. Bill Bittner and Assistant Director Dr. John Jones. John Jones, of course, should have been named right underneath Dr. Ryan because he has been here the longest. In addition to that we have Assistant Director, Dr. T.N. Vaughn who is in charge of the Inpatient Service, Dr. Larkey, Dr. Levenson and Dr. Clark who come on a part-time basis, and are in active practice in the community. Additional general clinicians are Dr. Alex Janushkowsky and Dr. Stan Schilling. These doctors come on a regularly scheduled basis, as I said, some full-time, some part-time, and they see both the drop-in students and the students who come in for an appointment.

The basic policy is that any drop-in student who comes to the Health Service is seen first by the nurse, who screens the problem. If it's a minor ailment she can handle it. If not, then one of the general clinicians serving in the drop-in area will see the patient at once, in emergency or just a drop-in, either category. The majority of the students in the outpatient department are seen upstairs on an appointment basis by these general clinicians. If a specialty consultation is needed, it is the decision jointly between the patient and the general clinician

TYC: that this consultation be obtained rather than leaving the decision solely to the patient. For example, a student with a skin rash is initially not seen in the dermatology clinic. He is seen by the general clinician who takes care of it; if the problem is complicated enough that they need the specialty consultation, the student is referred there by the general clinician. This is the procedure for all of the different matters -- contraceptives, GYN problems, a tumor problem, a fracture problem or whatever. The general clinicians do most of the care in this facility and have immediately available to them the services of the specialists, namely surgery, gynecology, psychiatry, dermatology, ear, nose and throat, orthopedics and internal medicine. These specialists are available in two different ways: We have, on a retainer arrangement, specialists in surgery, orthopedics, gynecology, ear, nose and throat, psychiatry and dermatology. They come periodically throughout the week to hold specialty clinics. For example, we have three specialty clinics in surgery a week, five orthopedic clinics, one dermatology clinic and one ear, nose and throat clinic, and so forth.

(From the 1974-1976 Annual Report - the last report in this format)

"There were 2,752 student outpatient visits to the psychiatric service in 1975-1976. 63 patients were hospitalized a total of 201 hospital days or an average of 3 days per patient. During this period, there were eleven suicide attempts, two successful."

AID: Patients can go directly to the psychiatrist?

TYC: In psychiatric matters, we have found that it is better to let patients go directly if they wish. The psychiatry department can do the initial interview and then set up a return appointment. This doesn't say that a majority of them necessarily go that way. We still get a lot of psychiatric problems that are seen by the general clinicians who will refer to the psychiatric department for further care. A tremendous amount of counseling is going on in the general clinic, in the contraceptive clinic and in the screening process. Many problems of psychiatric nature are nipped in the bud through this method of just sitting down and talking with somebody who is knowledgable. An illustration of counseling: you have a girl who is three days late with her menstrual period. Her counseling isn't necessarily structured but takes place at the counseling center or with the gynecologist or it may be with a nurse or one of the primary physicians who takes care of her.

TYC: But we do provide the opportunity for students who wish not to talk about their problem to anyone but a psychiatrist.

To use a specialist for nonspecialty type of care, a minor fracture being treated by an orthopedic surgeon for example, is a considerably more expensive method of providing that type of care. One of the reasons we have been able to survive the increasing costs of medical care is that we have primary physicians doing most of the family care. I would dare say that they probably care for 85% of all of the patients who come here.

AID: These seven full-time clinicians at the Health Center, if there were an opening or a vacancy, somebody died or retired or left, how would you select a replacement?

TYC: I periodically have requests from people for positions in the Health Service. If in my associations through medical societies or whatever, I hear of somebody who may be getting ready to make a change and feel that he might be an addition to the organization, I have an opportunity to make the contact and do some possible recruiting. If we actually have a position open, we comply with the personnel policy of the campus in advertising and recruiting in the same way that any other department does on campus. So if there is some individual who is particularly qualified, there is no guarantee that he can be hired by me. He must go through the usual routine of answering our advertising and being interviewed and I think that is fair. Through the campus system I have been able to identify a person who turned out to be better than the one being considered. But by the same token, many times with the ones that I have personally known or know of, you get a pretty good idea of what the product is. It helps you in your selection too.

AID: How do you rotate the duty, weekends and nights? For example, you have a physician on call for emergencies 24 hours.

TYC: Yes, we have a physician in the house 24 hours a day and this duty is rotated through and assigned to the general clinicians in one of two ways: The full-time people will be asked to take a night on call every other week for the equivalent of half a day off during the week. For four hours of being off every week, they work one night or weekend which is the equivalent of 14 hours and that is even compensation for them. Some of the part-time clinicians are paid a half a day for working a specific night during the week and that is part of their assignment. So it works out that a half-time person, for example, may work four half days and one night during the week on a regular assignment.

AID: It sounds to me like you need a computer to arrange the scheduling.

TYC: Well, it does become complicated at times. If one physician decides that he can't work tonight, we leave it up to him to make a swap with somebody else (for whom he will cover later) so they take care of it automatically and it never gets involved in the personnel record keeping.

AID: Who does set up the scheduling of the medical staff?

TYC: Dr. Ryan is primarily responsible for the ongoing schedule and she does it well.

THE NURSING SERVICE

AID: Let's talk more about the nursing service. What is the staffing pattern for each nursing care unit, including the outpatient?

TYC: The nursing service is primarily a multidisciplinary type of service with all different levels of nursing expertise available. It is under the able direction of the Nursing Director, Dorothy Dunning, who has for many years organized and operated a very efficient nursing service. In the outpatient department there are nurse's aides who assist in patient care. There are R.N.'s who work in various areas assisting the physician and doing nursing duties. There are specially trained and highly qualified R.N.'s who function as physician assistants or nurse practitioners who see students in the drop-in clinic and give primary care or judgment as to what care should be given. We have nurses working in specialty areas such as in occupational medicine who become very able in handling occupational and preventive medicine problems. Barbara Smith, who works with Dr. McKinney in this area also, is probably one of the main forces that keeps the public health program, the tuberculosis and the VD followup and the other programs going. We have other nurses who work in support areas such as the operating room supervisor, Carolyn Lewis, who runs the Central Supply. She is also in charge of the emergency room as well as the operating room. It is her responsibility to see that the operating rooms are in tip-top shape at all times and to have the supplies, equipment and staff available when needed. In that area, she calls on a team of nurses and nurse's aides who are here on a regular basis. She has a team of others who come in periodically for certain functions such as Jean Davis for infection control and others for specific jobs. She also has a team of on-call surgical technicians and scrub nurses who come in for the actual time that the operating room is in function. We are very fortunate to have a number of these nurses in Davis and in the adjacent communities who are able to come in when we need them. We don't have to have them here on a 24-hour, full 8-hour shift basis because we don't have that much activity; if we did, it would break us financially. A side thought -- I'm very concerned as to what might happen if our nursing service becomes

TYC: unionized and I think that the illustration of one employee, Carolyn Lewis, is a vivid one that explains my concern. Here we have a very qualified individual who serves as the operating room supervisor, who serves as the person in charge of central supply and does most of the ordering of all the medical supplies, and is also the person in charge of the emergency room. If unionization did occur, they would probably say, "Wait a minute, here are three different jobs and you must have three different people." If that ever occurs, we would lock our doors because we could not afford that luxury.

The concept, in the Health Service organization, of a person serving as a generalist and being capable of doing not one but several duties, is one of the other secrets that have made this organization able to survive. That is true in the nursing service and the physician service as well. We have a room that we call our intensive care area, even though according to new State Title XXII standards, it now doesn't suffice as an intensive care unit, because we don't have four beds, we only have two, and it has no window. But the fact remains that we have the equipment and we are able to monitor a patient until we can stabilize him, if we have to move him somewhere else, or treat him definitively, according to the situation. In order to do that we have to have trained nurses who are capable of working in an intensive care area. So, we have established a policy over a number of years that we have a number of nurses with this experience and capability and we have one of those nurses, through Dorothy Dunning's ability and scheduling, in the house at all times, night and day, seven days a week. One method we have used to insure that a qualified nurse is always on duty is our offer of an opportunity for them to participate in a two-week clinical experience program, during the summer when our load is light, at the University Medical Center in Sacramento, in the intensive care unit, to keep updated. For example, Val Turner is called in to the ICU because somebody came in with chest pain. She happened to be the only one in the building with that capability at the time. So we would go to the roster and call in some other nurse to do Val's work while she is in ICU.

In addition, to cover emergencies, we have two surgical nurses on call all the time, night and day, after hours, so that if we have an emergency surgical case, these two nurses are called in to staff the operating room and the floor supervisor at the time then also acts as supervisor for the operating room. Or we can have a number of cases in the outpatient department where we need extra manpower because of, say, an accident involving several people.

I want to say again the nursing service is handled most ably by Mrs. Dunning. I think it is an extremely difficult

TYC: situation that she has to face. She is constantly being chewed on by me or Bill Waid, the administrator, about keeping the cost of hospitalization or the cost of nursing service down. "Don't have more nurses than you really need," we tell her and at the same time in case of emergency, she is the first one to catch it if there aren't nurses here to handle the situation. It must become very difficult for her at times.

Normally we have two nurses in the hospital during the day handling a census of eight or ten patients. If that census drops below five and the activity of the patient's condition requires only moderate nursing care, the nursing staff has the capability of functioning in all other departments. Staff is shifted and utilized wherever the need at that moment is indicated. So we have a flow, back and forth, keeping the nursing service able to cover all of the different problems and also keeping it as efficiently economical as possible.

AID: What you say is just in essence what Dorothy Dunning told me. She said incidentally that people like working here because everybody cares about everybody else. She says the leadership is super and "because we're small everybody helps everyone else. People like that feeling of interdependence and those that don't weed themselves out." She also told me that in the past most of the R.N.'s come from student and graduate student wives and I think you mentioned that too. Though, more recently of course, via fair employment, you have to recruit them at large as you do anyone else.

TYC: I interrupt you when you mention graduate student. A humorous event that occurred in my life fifteen or more years ago turned out to be a very important one. A young, redheaded nurse came to my office and said, "My husband is coming here to graduate school, and I have two children, and I want to apply for a position working in the Health Service on the night shift from midnight to 8:00 a.m." That was such an unusual request, I said you are hired right now. Judy Erickson worked for approximately eight years in that position and then later after her husband graduated and the children got older, she shifted and worked as a day time supervisor for a number of years until they left town. Now they are in Chicago where he is Vice President of Swift Meat Packing Company, so we contributed something to the meat industry.

AID: Incidentally, many professional honors have been won by your nurses. For example, Dorothy Dunning was elected chairman of the nursing section of the American College Health Association.

TYC: Through the various nursing associations and the continuing educational requirements of the nursing service, they are involved in

TYC: activities in nursing organizations. It is important to recognize them for their efforts.

AID: Is Dr. Jones also responsible for the continuing education of nurses or does that come under Mrs. Dunning?

TYC: No, that is under nursing service.

AID: Do the same type of evaluation procedures exist to determine the quality of nursing as the quality of medical care?

TYC: That is correct, although its mechanism may not be as formal as the structured procedures of the Quality Assurance committee. However, we constantly monitor all the nursing activities. There is a nurse on the accreditation survey team, so nursing activities, methods, etc. are constantly being audited to make sure that they are up to acceptable high quality standards. The entire Health Center benefits by the fact that the hospital is here, because its influence, the quality of the personnel and the quality of their work tend to spill over and be part of a total quality operation.

AID: What type of distinctive garments have the nurses worn over the years? Has that changed?

TYC: The nursing staff have always worn nursing uniforms and caps and as the times have changed, we see nurses not in dresses as much as formerly but sometimes with long pants and many times not wearing nurses' caps. I chuckled when you said that because I'm sure it was a number of years after it was common practice in other places that that change occurred in this facility. Some of these traditions I don't give up on easily and you will find that that is something that might be mentioned in a critical but yet in a humorous and understanding way.

SERVICES OF THE HEALTH CENTER

(From Student Health Center brochures)

"The fundamental aim of the Student Health Center at U C Davis is to assist the student in remaining in school and achieving his academic potential by treating his physical and mental diseases as they arise. Because the student is the basic component of the University and because all University efforts are in his behalf, the Student Health Center is . . . an integral part of the University . . ."

"A listing of the various services include: the Drop-in Clinic, the Allergy Clinic, Psychiatry, the Birth Control Clinic, Alternatives in Birth Control, Emergency Care and Ambulance, Hospitalization, Off Campus Care, Cash Basis Service (certain special x-ray and lab exams, employment exams, prescriptions and immunizations, personal physical exams [routine], premarital testing), Pharmacy, Insurance. Non-available services include Dental Care, Eye Prescription Exams, Routine Maternity Care and House Calls."

"Two student representatives work at the Health Center as liaisons between the medical staff and students . . . questions, compliments, complaints and suggestions should be directed to them. They also work in developing health education programs. A Student Health Advisory Committee advises the Vice Chancellor of Student Affairs."

An educational booklet entitled "Student Health at U C Davis" lists the above information plus a page on rights and responsibilities and a section on some things that a student can do to promote his good health, including diet, exercise, mental health and the self breast exam. Another section includes items about Methods of Birth Control, Pregnancy Testing, Sexual Assault, Venereal Disease and Chemical Interactions. The booklet's closing section is a Student Guide to Self Health Care including information on the treatment of Acne, Animal and Snake Bites, Stings, Blisters, Bruises, Burns, Colds, Constipation, Cuts, Diarrhea, Epileptic Convulsions, Fainting, Human Bites, Mononucleosis, Nosebleeds, Pneumonia, Poisoning, Sprains, Stomach Aches, Strep Throat, Sunburn, Toothache. It also provides brief information on various life saving techniques and provides a handy phone directory of health service and community resources.

AID: Would you describe in general the services of the Student Health Center?

TYC: The Student Health Center program on the Davis campus is a comprehensive health delivery program which is designed to provide health education, preventive medicine and chronic and acute health care for the students, with the prime goal of assisting them in their academic pursuits. In order to accomplish all of this, we have developed a physical plan with an outpatient department where we currently see about 400-500 patients a day.

We have a State licensed clinical laboratory that provides routine outpatient and inpatient laboratory procedures including hematology, urinalyses, bacteriology and chemistry. In addition, the laboratory maintains a transfusion service with a basic supply of blood at all times.

We have an x-ray department with two modern x-ray diagnostic units and one photofluorographic unit which is used to do x-ray and fluoroscopy diagnostic work.

AID: What pathology examinations are made on the premises and which in a reference laboratory?

TYC: The State registered lab which we maintain in the outpatient department provides service to the students in the outpatient area. It also provides the service for the patients in the

TYC: hospital on a charge basis. As I said, it is State licensed and therefore must adhere to rigid standards of quality control. Dr. Les Hadfy is the pathologist who directs the laboratory and the medical aspect of the control; what is done in the laboratory rests directly with him. Bob Kubiak is the supervisor of the laboratory, as far as the technologists are concerned and is the person who is in charge of the everyday operation, with staffing, in the ordering of supplies and quality control, under the supervision of the consulting pathologist. The laboratory performs routine blood and urine analyses. We have a bacteriology unit which does our own bacteriology. We have chemical capabilities where we provide certain chemistries and, as we mentioned, the laboratory maintains a blood transfusion service on the premises, with emergency blood stored at all times.

There are certain procedures that the laboratory doesn't do, such as some of the automated chemistries, some of the sophisticated chemistries involving the enzymes. We will draw the specimen and refer it to one of the consulting laboratories, frequently Sacramento Clinical Lab for example, where we have a pick up everyday. They take the specimens and on the following day they return the results and pick up the new specimens, so we have a 24-hour service. If we have a procedure such as a blood gas determination on a seriously ill patient that we don't routinely do here, we will draw the blood and take it to Davis Community Hospital on an emergency basis and have it run by their lab, or take it to the Sacramento Clinical Lab and have it run there with a phone call report back.

The other aspect of the physical plan is the inpatient or the Cowell Hospital division which is an accredited hospital certified by the Joint Commission of Accreditation and licensed by the State of California. Hospital care is provided to the students and/or their dependents for minor infirmary-type cases or acute severe illnesses, including operative surgical procedures requiring general anesthesia or local anesthesia accordingly.

Initially each student is seen at the time of registration and a health chart is set up for him, identifying him, who his parents are and his home address, and identifying any problems that he might have of a medical nature. As a condition of registration, each student is required to bring in completed medical history and TB clearance forms. These are reviewed in person with the student to make certain of any medical problems that do exist, for example diabetes or handicaps of any sort. The preventive medicine aspect of the program is initiated by this maneuver. It then is carried on throughout the year with such endeavors as the Health Line, the volunteer student operated telephone line, whereby students can call and talk to another student who can give them

TYC: advice by getting information needed from one of the nurse supervisors or one of the physicians, depending on the circumstance. Health education is continued on through our ombudsperson program. Two students, each part-time, work in assisting other students with their problems concerning health delivery and any questions or complaints regarding insurance or other aspects of the health program. We have an outreach health education program in which we periodically visit the dormitories for fireside chats. The R.A.'s (resident assistants) come over to the Health Center and we outline the program to them so they can advise students on how and when to use the Health Service. At the start of each new year, all new students receive a handbook on the Health Service and how it can be used. In it, it is emphasized that we do not wish to replace their family physician, but to be an adjunct to him and therefore we seek information from their home doctor that may be mutually helpful.

Health education is also continued throughout the year with such programs as the ABC (Alternatives in Birth Control), the Contraceptive Education Clinic (CEC), the Counseling and Advising Services that we meet with periodically, or with counseling that we carry on in our own facility, and the constant contact with nurses and physicians for individual advice and treatment of medical problems or concerns.

AID: Aren't there also tours of the Health Center?

TYC: Yes, I was just going to mention that we are in the process of developing a program utilizing the resident assistants in the dormitories where they will assist us in health education not only by being knowledgeable about the Health Center but also we will have fireside chats and other health information sessions with people in their areas. We will talk about the various problems of diet, exercise, venereal disease, communicable disease and so forth.

Every year there is a summer orientation program put on by the Registrar's office in which students stay on campus for two days and accomplish their registration, see their advisors and sign up for their classes. At that time we also have the student come here for health clearance and introduction into the health service program. We give out the handbook, explain the insurance plan and the student meets with one of the doctors to talk about any health problems that might exist. The parents and the students also are given tours of the Health Center as a method of introducing the health program to them. Some of these tours are led by the student representatives, some are led by staff members. It is a public relations project to inform people about the program as well as a method of getting across some health education.

AID: You put on the Health Faire too, don't you?

TYC: Right. For the last two years, this will be the third year, we have put on a Health Faire in Freeborn Hall. The idea is again to disseminate information in the area of health education, about some of the aspects of health that one doesn't get a chance to find out about in routine health delivery circles. For example, in the last Health Faire we had a demonstration of smoking and what it does to one's health. We had some pathological specimens of a smoker's lung versus a non-smoker's lung and visitors could easily see the difference between the two lungs. We had an ear testing apparatus for people to test themselves in hearing along with a variety of exhibits and activities. It was very well accepted and we will be doing it again this year.

AID: Between 500 and 1,000 people attended. Then you have a literature rack that is very well stocked.

TYC: Yes, that is part of the health education program and many of the pamphlets are obtained from the Health Department or from other sources that are particularly applicable to students and their problems.

AID: And you put articles in the Aggie?

TYC: Most of this is done as part of the student representatives' program. One of the things we ask them to do is to periodically put articles in the Aggie, whether it be on a particular medical subject or on an administrative problem about leaving school or summer health insurance or some such thing. At one time we had a once a week column in the Aggie called the Student's Body carrying a discussion on various health topics.

ADMINISTRATION

The administrative organization chart reveals that at the end of August 1979, the Student Health Center required 105.14 FTE's (full time equivalents). These are classified as follows:

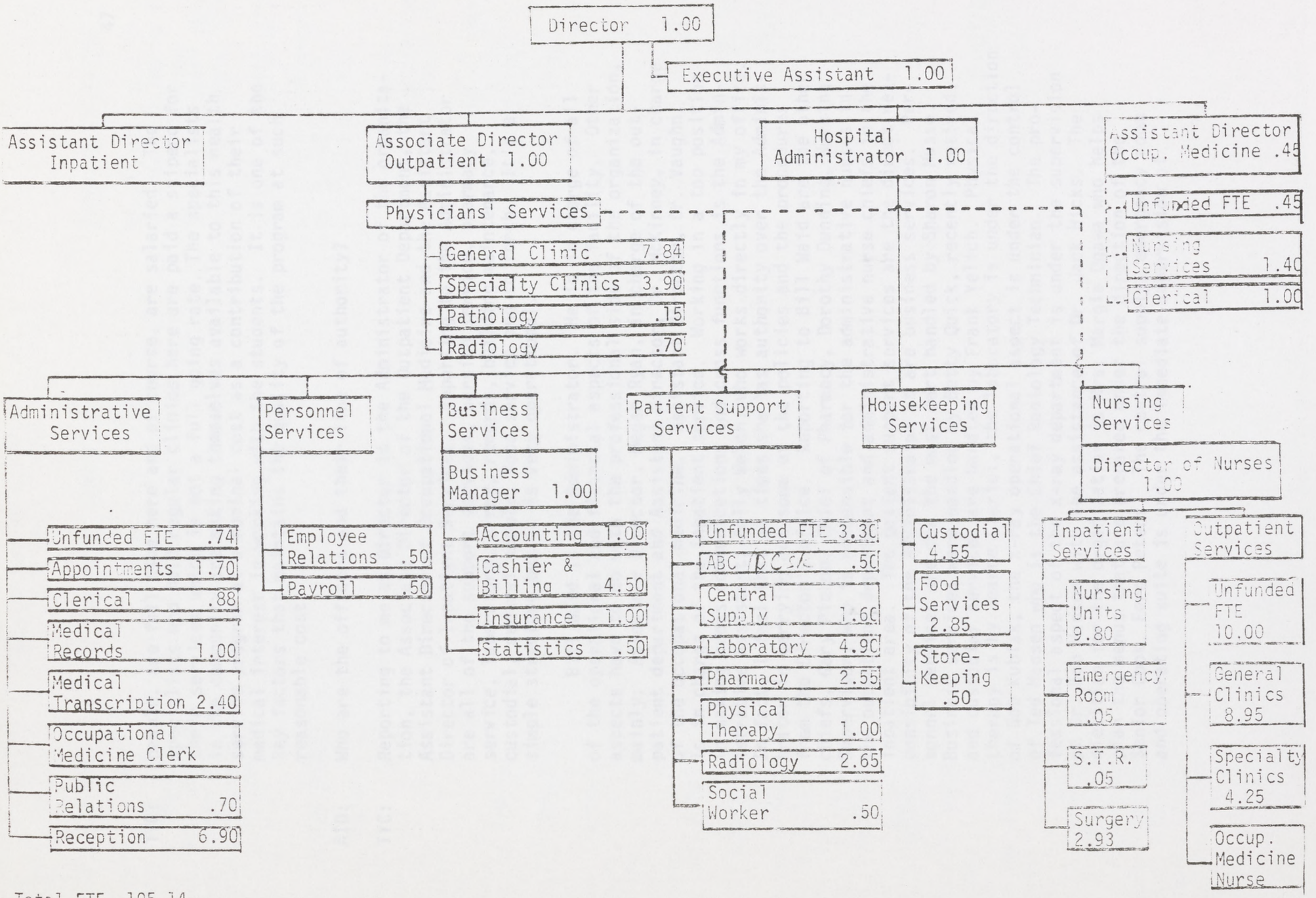
Physicians (includes 53 staff physicians and consultants)		12.99
Nursing Service		36.24
Registered Nurses	29.99	
L.V.N.'s	.80	
Hospital Assistants	4.80	
Surgical Technicians	.65	
Administration & Clerical		26.07
Patient Support Services		18.40
Pharmacy	3.35	
Laboratory	5.75	
Radiology	3.95	
Social Service	1.00	
Physical Therapy	1.75	
Central Supply	2.60	
Food Service		3.64
Custodial Services		4.50
Occupational Medicine Unit		3.30
Physician	.55	
Registered Nurse	1.75	
Secretarial	1.00	
TOTAL F.T.E.	105.14	

(Head count of regularly employed individuals is 165)

AID: There is a total of 105.14 budgeted FTE's. I wonder if you would like to comment further on this.

TYC: Yes, it is an important thing to discuss because I think the balance is important and there are aspects that need to be highlighted. As we analyze the total FTE which this year is equivalent to 105.14, we find that there are 12.9 FTE physicians, there are 36 FTE nurses, L.V.N.'s, R.N.'s, hospital assistants and surgical technicians. In the clerical area there are 26 FTE which includes the girls in reception, the people who work in the record area and those who have to do with general administration. In the patient support area which includes pharmacy, laboratory, radiology, social service, physical therapy and central supply, there are 18.4 FTE. In the food service which provides food for the hospital patients 24 hours, seven days a week, there are 3.6 FTE. The custodial service which serves both the hospital area and the outpatient area and the walks immediately adjacent to the building has 4.5 FTE. The occupational medicine unit, again a selfsustaining nonstudent money funded, has 3.3 FTE which includes a .55 FTE for physician, a 1.75 for nursing service and a 1.0 secretarial service. Now the interesting thing about this is that the total FTE is not made up of 105 individuals. It is made up of a considerable number of part-time people as well as full-time. A vivid example is that of the 12.99 physician FTE: there is a physician staff roster of 55-60 physicians. That many physicians are considered as employees of the Health Service and the varying amounts of time they spend identifies a certain percentage of FTE. So, close to 60 licensed physicians provide service for a total 12.99 FTE. The same is true, to a large extent, in the nursing service. In other areas such as the pharmacy, the clerking area, food service and custodial service, for instance, they have mostly full-time people scheduled in different shifts or maybe two people doing one person's FTE. I have said that there are seven full-time general practitioners who work in the outpatient department and they see initially most of the patients that arrive in the Health Center. They have at their disposal to refer or to call in for consultation surgeons, orthopedists, gynecologists, psychiatrists, ENT, dermatologists and all the specialists which at times may be necessary for continued evaluation or treatment of a problem. These specialists are frequently here in the building holding clinics based on a plan that has been developed over years of experience and demonstrated need. We have five orthopedic clinics, two dermatology and one ear, nose and throat clinic a week. We have three surgical clinics a week, two gynecology clinics and so forth. The majority of the 60 staff members are without salary. They are kept on the records and are covered by the University's malpractice insurance with an appointment of 0% time and fee-for-service. The general practitioners, including the Family Practice Board Certified

ADMINISTRATIVE ORGANIZATION CHART



Total FTE 105.14

August 1979

TYC: people, are full time here and of course, are salaried. The specialists who hold regular clinics here are paid a stipend for their services which is not a full going rate. The specialists in the community are making themselves available to this health service program at a nominal cost as a contribution of their medical interest in working with the students. It is one of the key factors that maintains the quality of the program at such reasonable cost.

AID: Who are the officers and their line of authority?

TYC: Reporting to me as Director is the Administrator of the organization, the Associate Director of the Outpatient Department, the Assistant Director of Occupational Medicine and the Assistant Director of Inpatient Services. Reporting to the Administrator are all of the support services, nursing service, pharmacy service, laboratory, x-ray, records, building maintenance, custodial, central supply, food service and so forth. It's a simple structure but it is very operational.

Bill Waid is the Administrator. He is in charge of all of the operational and financial aspects of the facility. Other aspects have to do with the professional side of the organization, mainly: Associate Director, Megan Ryan, in charge of the outpatient department and Assistant Director, Dr. McKinney, in charge of the occupational medicine. Assistant Director, Dr. Vaughn, is in charge of the inpatient service. Working in a top position in making cross communications and cross functions is the Administrative Assistant, Polly Welch, who works directly in my office. In fact, I feel that at times she has authority over the Administrator in carrying out some of the policies and the procedures from the Director's office. Reporting to Bill Waid are the other chiefs, Gary Pichon, Chief of Pharmacy, Dorothy Dunning, Nursing Supervisor, who is responsible for the administrative nurses in the outpatient department and administrative nurse chiefs in the inpatient area. The patient support services are the direct responsibility of the Administrator as are business services. Personnel services are for the most part handled by Sharon Musso. Business services were handled by Betty Quick, recently retired, and custodial services are handled by Frank Yelich. Physical therapy is by Jeanne Clerici, the laboratory is under the direction of Bob Kubiak, the x-ray operational aspect is under the control of Ted Hansen who is the Chief Radiology Technician. The professional aspect of the x-ray department is under the supervision of Dr. Bob Hanson with the assistance of Dr. Jack Hicks. The dietitian for the organization is Mrs. Margie Ogawa who helps plan the menus that are prepared under the direction of the Senior Cook, Fern Peters. The central supply, emergency room and operating suite is under the immediate supervision of

COWELL HOSPITAL AND STUDENT HEALTH CENTER
1979-80 STANDING COMMITTEES

EXECUTIVE COMMITTEE

Dr. Cooper, President
Dr. Jones, Vice President
Vaughn, Secretary
Dr. Ryan, Dir. OPD
Dr. Brown, Chief of Surgery
Gibbert, Chief of Med.
B. Waid, Administrator
D. Dunning, R.N., Supt. Nurses

MEDICAL RECORDS COMMITTEE

Dr. Clark, Chairman
Wisner
Dr. Ryan
Dr. Vaughn
Dawkins
Stek
J. Gibson, R.N.
B. Waid, ex officio

UTILIZATION COMMITTEE

Ryan, Chairman
Dr. Vaughn
Dr. Bittner
Wisner
Burgess
Jane Gibson, R.N.

EMERGENCY ROOM COMMITTEE

Dr. Vaughn, Director E.R.
Dunning, R.N.
C. Lewis, R.N.
Dr. Olson, E.M.T.
B. Waid, Administrator

INFECTION CONTROL COMMITTEE

McKinney, Chairman
Dr. Foster
Dr. Stek
Hadfy/R. Kubiak
Dr. Olbrich
J. Davis, R.N. (I.C. R.N.)
Pichon, Pharmacist
Lewis, R.N. (C.S. R.N.)
B. Waid, Administrator
EH&S Representative
Carol May, R.N.
Frank Yelich, Custodian

SAFETY COMMITTEE

Reorganized 11-1976 to include all dept. heads. Meetings second Tuesday each month.
B. Waid, Admin., Chm.

LIBRARY COMMITTEE

Dr. Ferris, Chairman
Dr. Ryan
Gretchen Orcutt

NURSING AUDIT COMMITTEE

Absorbed by the Quality Assurance Committee 1-1980

MEDICAL AUDIT COMMITTEE

Absorbed by the Quality Assurance Committee 1-1980

SPECIAL TREATMENT ROOM (STR)
(ICU - CCU)

Dr. Gibbert, Chief of Med.
appt. 7-1979
approved 10-2-79

PHARMACY COMMITTEE

Dr. Jones, Chairman
Dr. Ryan
G. Pichon, Pharm. D.
Jane Gibson, R,N,

CREDENTIALS COMMITTEE

Dr. Brown, Chairman
Dr. Hicks
Dr. Ferris
Dr. Bittner

LABORATORY COMMITTEE

Dr. Hadfy, Chairman
Dr. Schilling
Dr. Vaughn
Dr. Clark
Dr. Newmark

SURGICAL EVALUATION COMMITTEE

Dr. Brown, Chm., Chief Surgery
Dr. Hadfy, Pathologist
Dr. Ross, Surgeon
Dr. Larkey, Staff Physician
Dr. Foster, Ortho. Surg

QUALITY ASSURANCE COMMITTEE

Dr. Bittner, Chairman
Dr. Brown
Dr. Dawkins
Dr. Ferris
F. Blankenship, R.N.
Dr. Cooper, ex officio
Joe Manelis, Pharm. D.
Dr. Ryan
B. Lewis, Medical Records

DISASTER COMMITTEE

Dr. Clark, Chairman
Dr. Wisner
Dr. Ryan
B. Waid
C. Lewis, R.N.
D. Dunning, R.N.
R. Burroughs, Reception

ACCREDITATION COMMITTEE

B. Waid, Admin., Chairman
Dr. Burgess
Dr. Stice
Dr. Brown
Dr. Hanson
Dr. Gibbert
D. Dunning, R.N.
P. Welch, Exec. Asst.
C. Lewis, R.N.

STERILIZATION COMMITTEE

Dr. Brown, Chairman
Dr. Vaughn
Dr. Ryan

TYC: Carolyn Lewis the Surgical Supervisor. The insurance and billing office which is responsible for the handling of charges and income is under the direction of Joan Henderson. The occupational medicine department is under Dr. McKinney who has two people who keep this running very smoothly, Barbara Smith R.N. and Mary Anderson, the administrative clerk who handles the business aspect. There are other specified areas of activities such as the contraceptive educational area with Wendy Davis and Marge Challey, R.N. who is directly responsible for the nursing aspect under the guidance of Johanna Stek, M.D. One could read the whole manual and personnel roster and identify individuals who have distinctive responsibilities, but to single anyone out and continue to try to break this down becomes unimportant because so many of these people have individual responsibilities, they are in a category by themselves. We were talking a while ago about Betty Lewis who is in the record area and the other women who work in there are just as important in their duties as anyone serving as supervisor or subsupervisor in a particular area.

(The appendix carries the names of all Health Center employees as of October 1, 1979.)

AID: According to my records, the first Hospital Administrator was Robert J. O'Malley, who served for ten years to 1978. Upon his retirement, William C. Waid, who came from the University of California at Irvine, was selected.

TYC: That's right. Again, the job of Administrator, like so many things in this facility, was a result of need caused by the enlarging campus population and the resulting growth of our activity both patient-wise and dollar-wise. Many of the fiscal records that first Virginia Bryce and then later Eve Bradley took care of became of such magnitude that additional help was needed. When it became apparent that we needed an individual with expert training and knowledge of hospital systems, Mr. O'Malley was hired as Administrator.

AID: You get your authority directly from the Regents, do you not? And that comes to you through the Chancellor and the Vice Chancellor for Student Affairs?

TYC: That's correct. I am an official of the University, the appointment as Director given me in 1956 carried with it an equal professorial level and a membership in the academic senate. So I am considered a regular member of the University faculty.

AID: Is this true of any of the clinicians?

TYC: No.

AID: A statement that I have read claims there are operational difficulties inherent in being an organizational entity of the University campus. Financial mechanisms and funding sources are judiciously controlled by the campus administration. What are some of those difficulties?

TYC: The Vice Chancellor for Student Affairs along with the Chancellor and the Executive Vice Chancellor are responsible for the distribution of the available reg fee fund and in budgeting for the use of those funds; the Health Center more and more is in competition with other units. The funds are ever dwindling with inflation and in keeping up with all of the programs that have been initiated. So, as this competition has increased, the Vice Chancellors and the Chancellor have to make decisions as to whom gets this money and this competition leads either to a reduction in the Health Center program if funds aren't available, or, as we have decided here, paid through an alternative funding source. That is why we have initiated a charge for some of our services.

One of the other duties that I have is to serve with Tom Dutton, the Vice Chancellor of Student Affairs, in the administrative group which meets on alternate Wednesday mornings. It includes the Registrar, the Director of Housing, the Assistant Vice Chancellor of Finance, the Assistant Vice Chancellor of Student Services and others who are involved in such fields as police, student organizations and activities, Memorial Union and budget. At those sessions many campus problems are discussed and policy decisions are made concerning campus environment and the expenditures of the registration fee money. It gives an opportunity for the Health Service to be made aware of many of the campus problems which aren't directly related, not necessarily medical, but may have some immediate or potential impact that we may need to take action on. For example, we discussed Picnic Day and this alerts me that Picnic Day is coming, there will be a lot of extra people here, and we will need to be staffed to handle emergencies of all kinds, for both visitors and students and from accidents, dog bites, athletic injuries, rodeo incidents, and what have you. So this is an information gathering medium for me as well as an opportunity for me to contribute directly about the Health Service relation to the campus environment.

AID: What are the standing committees of the Health Service?

TYC: The operational ones of the Health Service are the Department Heads Committee, which meets every Tuesday and the "Summit" or Executive Committee which meets every Thursday.

AID: Is that called the Management Council?

TYC: It is called the Management Council; I call it the Summit meeting.

AID: Who is in that?

TYC: In the Summit are Polly Welch, Bill Waid, Dr. Ryan, Dr. McKinney, Dr. Burgess, Chief of Psychiatry, Betty Quick, financial area and Dorothy Dunning, the Nursing Director. Once a month we have a medical staff meeting which all of the physicians attend and this is the official meeting to develop operational procedures and policy, to adopt, to discuss and to alter the activity of the inpatient as well as the outpatient area. Primarily, this group meets with the goal in mind of the quality of medical care in the inpatient area and it is structured to satisfy the requirements of the Joint Commission and the licensing requirements of the State of California.

AID: When does that meet?

TYC: This meets on the first Tuesday of every month.

AID: Is that called your Executive Committee?

TYC: That's called the Executive Committee of the medical staff.

AID: And Dorothy Dunning is in that?

TYC: Dorothy Dunning and Bill Waid the Administrator likewise are sitting in there ex officio, and Polly Welch serves as the secretary, keeping the minutes. There are then other standing committees of the inpatient area such as Infection Control, Medical Records, Quality Assurance, Safety, etc.

AID: How often do they meet?

TYC: They meet once a month so they can report to the Executive Committee and any suggestions or any action that comes out of their committee deliberations then is acted on by the Executive Committee. I have said from the Executive Committee meetings may come major policy changes or taking issues to the campus administration or on to the State of California for satisfying of the requirements of the Board of Medical Quality Assurance for the license requirements and the multitude of different problems that emerge from the committees. Meetings of standing committees are a costly thing to do in terms of manpower and time, but very worthwhile and throughout the years of hospital or health delivery operation, they have been established as necessary functions of the medical and the ancillary support staff in order to assure quality care. One of the most important of the standing committees is the Quality Assurance Committee (formerly called the Medical

TYC: Audit Committee). This committee periodically reviews a particular subject to verify that the type of medical care being administered is of acceptable quality. It has an ongoing function of working with the medical records people to have a constant audit of all of the records so they are up to the required standards. If they have questions, they report them to the Executive Committee. The Executive Committee will recommend to the Director, the Chief of Staff, that some action be taken for correction, suspension or whatever is necessary to the control for quality assurance.

The Quality Assurance Committee takes on a particular subject and investigates all aspects of it, as I've said. For example, one that has just been completed is the appropriate diagnostic procedures and treatment of streptococcal infection including such things as the proper bacteriological examination, the evaluation of the patient, the types of tests that need to be done such as the surveillance of the blood and urine and cultures, the appropriate treatment with medications and then the appropriate followup for the reevaluation and reculture to ascertain complete eradication of the organism. This investigation was a very helpful audit because the study identifies the problems and brings to light a bad habit that a health service person may have developed or has neglected and it alerts everyone to the accepted procedure to be followed, thereby correcting the problem.

Another example: The treatment of gonorrhea. We will pull all of the gonorrhea charts and we will evaluate the care, the diagnostic procedures, the way the patient was handled, the end results, the followup examinations, the contact evaluation that was made etc. and from this audit we then identify the quality of the care that the particular physicians are performing. It doesn't take long in going through an audit like this because the records of the physician would reveal if his level of care was insufficient.

AID: If you found in the case of gonorrhea, for example, that the contact was made on campus, would an attempt be made to get in touch with the contact?

TYC: That's correct. We consider that one of our functions as a campus health service. Dr. McKinney is in charge of the program of public health and he will be given the name of a possible contact and then will contact the individual and tell him that he has a possible exposure and would he come in and discuss it and take preventive medication or whatever other measures might be necessary.

AID: Is this optional with an individual or is it required by law?

TYC: Venereal disease, syphilis and gonorrhea, and other infectious diseases are required by law to be reported. We have an arrangement with the County and an understanding with the County Health Department that in the reporting of any of the contacts, like in tuberculosis or in venereal disease, we will not work through them but we will handle our own here on the campus. That is all done through Dr. McKinney's area. The area of tuberculosis is interesting in that this is not a one time thing. We will have students in entrance physical examinations that are found to have a potential tuberculosis problem. We have an ongoing yearly tuberculosis screening of the veterinary and medical students because of their high exposure to this particular disease and we also have a tuberculosis screening program for our Education Abroad students, those who come back to the campus; we require this of them. Through this ongoing program, year after year, we will see many of these students and continue this surveillance program.

AID: How do you review such things as tissue function, therapeutic function, blood utilization, pharmacy and antibiotics?

TYC: You mentioned Tissue Committee. We now call it Surgical Evaluation Committee. It reports on all surgical cases and all cases that should or should not have had tissue removed and reports its satisfaction or dissatisfaction as to whether the surgery was indicated because of the pathological findings. We have a Pharmacy Committee that meets periodically and discusses various aspects of our drug use program, the needs for additional, newer type drugs, the need for removing some of the drugs from our every day use because of new information that's come out about them or any other aspects of pharmaceuticals that need to be evaluated. We also have an Infection Control Committee which periodically does spot checks for possible sources of infection, like in the operating rooms by culturing the floors and walls. It sets up guidelines for the handling of certain types of problems, for example, if we have a student that is admitted with a communicable disease to the hospital, like tuberculosis or hepatitis, there are certain rules that must be followed. The Infection Control Committee is ongoing and therefore assures that this is being done. Our ongoing Medical Records Review Committee meets regularly to review the charts of all of the hospital admissions, not periodically but a constant review of all the charts for hospitalization which ensures that the requirements for hospitalization have met with the procedures established.

AID: Did you say that it was also the Quality Assurance Committee that evaluates all medical and nursing services?

TYC: The Quality Assurance Committee may evaluate any service if there is a suspected problem including laboratory services, x-ray procedures

TYC: or whatever. We leave that decision pretty much to the chief of the committee. The Executive Committee does make suggestions and assignments to the Quality Assurance Committee but in general they choose their subjects. The Joint Commission also may suggest activities to the Quality Assurance Committee because some of the requirements for accreditation must be audited and ascertained that they are up to acceptable standards.

AID: What about Ad Hoc Committee?

TYC: We have had many of those set up for various different functions. One of the most important ones was a search committee for the hiring of the new administrator and we will now be going back into that situation again with the replacement for Polly Welch and Betty Quick both of whom will be retiring within the next six months. It is going to be difficult to fill their positions.

AID: Are the standing committee meetings open?

TYC: Yes, in fact, I am sure they invite members if there is some subject that is being discussed that involves somebody and may need to be clarified. The Ad Hoc Committees that we set up are primarily those that have to do with particular problem solving whether it be personnel replacement or policy change and there is not already a standing committee that handles it or there may be a subcommittee set up to look into something like purchasing new equipment or altering of some normal activities.

AID: You have an Accreditation Committee, as you said. It might be a good time here to trace the accreditation of this institution from the beginning.

TYC: Yes, actually the first accreditation of the facility occurred on April 6, 1966. It was near the time that we initiated the supplemental insurance program. For a hospital to receive benefits from individual insurance payments or from state or federal funded insurance programs, it has a problem of identification of licenses and being recognized as a quality institution. One of the ways to do that is to have a certification by the Joint Commission on Accreditation of Hospitals that it is an accredited institution and therefore practicing acceptable type medicine and its fees and charges are just. So, recognizing this as well as the desire for being certain that the care given to our students was of high quality, I initiated the establishment of the various records, policies and procedures. Bylaws, rules and regulations of the medical staff were drawn up so that we could meet accreditation requirements. It took a lot of work, understanding and review to find out what we had to do and how a small 46-bed hospital would go about getting accreditation. We found that this was not that difficult. In fact, many of the

TYC: requirements are so flexible that they are applicable to a three or four patient day census as much as they are to a 300 to 400 day census. But nonetheless, through the investigation and the hard work of several members of the staff including Polly Welch, the accreditation was applied for. We were surveyed and the initial accreditation was received for one year and later on we had repeat accreditation surveys and managed to have a two-year accreditation each time which signifies that there were minimum items that needed to be corrected or altered.

The custom of the Joint Commission that investigates the institution is that if you have some deficiencies of magnitude, they will either not issue the accreditation or they will give a temporary accreditation for one year and come back the next year to see that this deficient item has been corrected or the criticized activity changed enough to be accepted. So it became economically necessary as well as a very desirable thing for quality patient care for the Health Service to qualify for accreditation. It required a lot of extra work by the staff. It required a change in a lot of operating procedures. It required development of additional records and a new method of keeping them. It required a lot of committee work and a lot of extra hours of staff activity for which no direct compensation was made. Again, credit is due to the tremendous effort of the whole staff in putting together a package like this and seeing that we receive continuing accreditation. This last time the accreditation survey was almost too easy because we had been doing things by direction of previous accreditation surveys, making corrections and alterations in our activities so there was very little that we had to add or do differently. I think this speaks well for the staff, that once they are advised of something to do, they continue to do it and to keep quality high.

AID: Am I correct that out of 7,400 hospitals in the United States, only 5,300 of them are accredited?

TYC: Yes.

AID: Incidentally, in 1977 following your accreditation you were commended for quality care.

TYC: That's correct.

AID: How many of the other health services of the universities in California that you know of are accredited?

TYC: There is only one that I know of and that is the Cowell Hospital at Berkeley and as far as I know it still is accredited. They are changing their philosophy at Cowell Berkeley now and are not hospitalizing major hospital problems. They are using their insurance program and sending them to Herrick or Alta Bates Hospital.

AID: How many beds are necessary to have a hospital facility accreditated?

TYC: I don't know. Is there a minimum?

AID: I have 25.

TYC: It may be. That figure doesn't mean anything to me.

AID: I would like to get your comments in a little more detail about some of the other standing committees. For example, Building and Grounds and Safety. How do they provide that the Health Service is safe and sanitary?

TYC: Certain procedures are identified in a health facility as being necessary to maintain sterility and acceptable working conditions. Let's say, for example, in the operating suite there are specifics that say what kind of a floor can be there, what kind of wax can be used, what kind of cleaning material can be used, how often a certain type of procedure has to be done, what is done after each case, what is done once a week, what is done as an overall care for the facility. In addition to that there are specific needs for repeat bacteriological safety investigation, culture of the floor, culture of the equipment and maintaining a constant sterile area. There are also requirements for maintaining proper humidity and temperature in the operating room. There are also requirements for electrical safety that specify types of switches, of plugs and other safety equipment. There are also many requirements concerning the sterilization of the instruments and other equipment that is used. All of these things have to be constantly monitored and checked and recorded that they have been checked, so there is never any question that this has been done. This comes under the responsibility of the Administrator through the Nursing Supervisor who utilizes her authority over the custodial service, the laboratory service and others. Somewhat in the same vein, the requirements of the general health facility don't demand this strict bacteriologically controlled environment because people come and go in the outpatient department. But nonetheless, there still have to be standards of cleanliness and of safety.

We have had to comply with many of the new standards that OSHA requires; changing of electrical plugs, changing the safety of the lights, and new supplies not only in the outpatient area but also in the hospital bed area where requirements are rigid. For example, the drapes must be flame-proof and the same with the mattress covers. There are just a tremendous number of specific requirements that we must meet to provide safety and proper care for patients. Once established, these requirements are not difficult to maintain. To initiate a new program and to make

TYC: these changes that weren't originally required becomes costly and very difficult. We are fortunate to have the University Physical Plant Department care for our facility even though we have to pay for this service. They are used to constraints and restrictions and requirements for building codes and for maintenance. They have, I feel, an extremely cooperative group of people who maintain high standards and know the requirements of a professional building. With the advent of the medical school on the Davis campus, they are even more aware of the requirements of a health facility. Our building is cared for by Physical Plant, the outside structure, painting and so forth. Routine upkeep operation of the inpatient area is part of our hospital cost and we pay for that as we do for the utilities and the heat. The grounds keeping is paid for by the hospital area. The grounds keeping is a function of the general campus so we benefit from their knowledge and manpower.

AID: Do the safety committee members provide hazard surveillance? Do they go around looking for hazards?

TYC: Yes. They take different projects periodically and check on them. They also work with the Occupational Medicine Department and Fire Department in the areas of safety or mechanical things, fire prevention and of personal equipment.

AID: While you're talking about fire, do you have fire evacuation drills?

TYC: We have periodic inspections by the campus Fire Department and they are extremely rigid and careful about where certain things are stored, for example, putting chairs in an area that is supposed to be left as an evacuation area. We have periodic drills of fire and of disaster, as I have mentioned. At our last fire drill, fires were started by the Fire Department in the parking lot and the nursing staff and others were required to use the extinguishers and put the fire out. So they got not just a demonstration, but a first-hand feel of what they might be expected to do.

AID: In the event of a bad fire, how do you safeguard your medical records?

TYC: I don't know that we have any specific rule other than they are, of course, in metal containers and they are very tightly packed so they themselves are pretty much fire-proofed.

AID: What would provide emergency power if the power system failed?

TYC: Maintaining a health facility with an operating room and intensive care for patients, we have an auxillary power unit which, any time the power goes off, automatically comes on and lights up certain areas including the hallways and the operating suite. It is maintained by the Physical Plant and they conduct inspections and

TYC: periodically throw the main switch to make sure it does perform in the way it should.

AID: How about patient safety? Do you have a nurse call system?

TYC: Yes. The Executone people who are the installers of our nurse call system periodically come and do routine maintenance as well as inspection. We have, on contract, an organization that does periodic inspection and maintenance of most of our medical equipment, the electronic monitoring equipment, the electrical units that are used in the operating room such as the Bovie unit, the sterilizers and the other sophisticated equipment involved in health delivery.

AID: You have smoke alarms?

TYC: Yes, smoke alarms with automatic electric door shutting and so forth, all periodically checked.

AID: Is there a water system where water will come down to extinguish flames?

TYC: Yes, one of our accreditation surveys, four to six years ago, identified the fact that we did not have a fire protection sprinkling system and in order to meet their requirements before they resurveyed two years later, we had to install one. It was a very costly item to install in an existing building. It was also more unsightly than it would have been if it were the code at the time the original building was built. Many of the pipes are exposed instead of just the little sprinkler heads in newer buildings that had them put in initially.

AID: Does money for something like that come out of the University capital fund rather than your own budget?

TYC: I'm not certain about the specifics as far as that particular project goes but we do have assistance from the administration on special projects that are beyond our control, such as a new requirement that isn't a budgeted item. There is a contingency fund in the Student Affairs operation that can be called upon and the decision for its use is made over there.

AID: Let's talk about security provisions for a minute. How are new employees checked out in terms of security? Any special investigations?

TYC: New employees, of course, are hired through the campus personnel department at which time their applications are surveyed and the acceptable ones are sent over to us for review and to select the one to fill the position. The clerks or others who work with

TYC: cash, in the Health Center, are given special investigations and later special training in how to handle people and cash. There is a campus procedure for educating these people and a constant review to see they are complying with the various regulations. In addition to that, a specific program is set up to minimize the likelihood of mishandling funds.

AID: Are there special security supervisions regarding visitors, prevention of theft and so on?

TYC: We have a specific program underway that was started several years ago to establish security in the various areas by locking those areas. When we finish the project, individuals who work in a specific unit such as the laboratory will have access to that where other employees from, say, physical therapy, would not have access to the laboratory. The clinical areas where drugs are stored are secured not only by the outer door but the drug drawers themselves are securely locked. Pharmacy has a narcotic area that has a special lock. The pharmacy itself has a lock that can be opened only by the pharmacist plus one key that belongs to the nursing supervisor - even the Director cannot get into the pharmacy. The key ring of the Nursing Supervisor is a very cherished item because it contains the master key for the building and can open for purposes of emergency any area including the pharmacy. The Nursing Supervisor has 24-hour availability to get into any area of the facility. This ring of keys is passed by hand from supervisor to supervisor, as the shift changes, so there is no opportunity for it to be lost. Another key control is handled in the administrative area where the people who have certain keys for specific areas are identified and they have no access other than through this means. The supervisor key control has an interesting aspect in that it identifies a positive control and security officer. For example, anybody who needs to go into one of the treatment areas must get the supervisor to open it for them and see that it is secured afterwards. So this procedure provides a built-in personnel security as well as a physical security.

We have many items in the facility that are under strict control of the State Board of Pharmacy and of the Fire Marshal and we must have a procedure to guarantee that these are always under tight security. The fire code, for example, has rigid regulations of where flammable gases can be stored. They must be in an area that is totally flame-proof and must be chained to the wall so they can't fall over in case of an earthquake or somebody slamming the door. Ether must be stored in only certain areas and not left open. The State Pharmacy Control has rigid standards of handling narcotics, requiring daily counts or periodic counts on certain items requiring triplicate narcotic-type purchase forms, and all kinds of other controls. We have an ongoing surveillance of the narcotic area for compliance with the state requirement and also

TYC: for protection of the pharmacist and others. An outsider periodically goes in and audits the pharmacist's count so there is no question. We have been very fortunate. We have had very few incidents over the many, many years that I have been Director, of any abuse in the narcotic area. I recall one in which a student forged a prescription and was able to obtain some narcotics. It wasn't operational deficiency that allowed it -- it was just a clever thing that somebody did once and we got wise to it.

COMBINED OUTPATIENT STATISTICS

	1974-75	1975-76
Ambulance Runs	181	215
Laboratory Procedures	66,363	68,137
Electrocardiology Procedures	258	244
Pharmacy # Line Items	26,976	25,726
Physical Therapy - Procedures	6,936	5,889
Social Worker visits	527	852
Radiology Procedures	6,415	6,711
RVS	34,280.9	40,400.8
Emergency visits	315	299
Total Patient Count	95,221	98,427
	(an average of 400 daily)	
Physician Visits - Total	63,774	66,672
Drop-In Clinic visits (Gen)	19,950	20,775
Appointed Clinic visits (Gen)	35,070	37,406
Psychiatric	2,016	1,900
Medical	507	522
Surgical	1,498	1,498
Orthopedic	1,707	2,070
Ear, Nose & Throat	208	257
Dermatology	1,023	599
Gynecology	1,462	1,390
Preventive Medicine	7	23
All others	333	294
Nurse Visits - Total	92,488	88,875
Screening	41,802	44,154
Other	50,686	44,699

16,127 average enrollment = $121.27 per student PER YEAR = 1978-79

16,032 average enrollment = $114.25 per student PER YEAR = 1977-78

1978 - 1979 (yr. ending June 1979)

Total outpatient visits	95,271
Total inpatient admissions	540
Total patient days	1,670
Total surgeries	328
Emergency Room visits	331

THE OUTPATIENT SERVICE

TYC: The outpatient load is quite heavy, in the neighborhood of 400 to 500 a day. The student has the privilege of availing himself/herself of service in the outpatient department by either dropping in or coming in for an appointment. If the student drops into the outpatient department, he/she is seen initially by one of the qualified nursing personnel who does evaluation in the so-called screening clinic. Here minor illnesses such as abrasions or colds may be taken care of solely by the nurse. If the problem is of a larger magnitude requiring a physician, one of the general practitioners will then immediately see the patient as referred by the nurse. The patient will be evaluated by the physician, the prescription and treatment program initiated and the patient sent home to continue on the program or in the more serious situations, the patient will be evaluated and admitted directly to the Cowell Hospital. To provide continuity of care, the medical record unit in the outpatient department has the name, the registration number and the chart number of all of the registered students. It is the registration of the student and the paying of the registration fee that entitles the student to use the Health Center.

In addition, in the outpatient department is a licensed pharmacy in which there are two pharmacists and a pharmacist's aid who compound and dispense perscription drugs as prescribed by the physicians. The charge is made directly to the student for this program; it is not a benefit of the registration fee. The prescriptions that are filled by our pharmacy are slightly lower in cost than they are in the community because the cost of dispensing is less here because the university is tax exempt and the building is funded by a grant of the Cowell Foundation, so there is no mortgage to amortize or taxes to pay. The prescriptions written by the physicians, however, may be filled by any pharmacy.

AID: What is the history of the pharmacy?

TYC: Initially the medications and prescription drugs for the students were dispensed as part of the registration fee. In the olden days we would take aspirin tablets, or sulfa drug tablets or aureomycin tablets and if a student came in who needed one of these particular medications, we gave it to him with the instructions on dosage.

TYC: As the need developed for tighter control on drugs, for more complicated drugs, we organized a pharmacy with a registered pharmacist. The pharmacy orders its own supplies, its own drugs; it compounds its prescriptions. It takes prescriptions as prepared by the physicians and supplies to the patient the medication or the apparatus that the prescription orders. It is under the direct supervision of Gary Pichon, the chief pharmacist, who reports directly to the Administrator. I have said that it is under the careful guidelines of the state pharmacy control, the state licensing board and it has periodic inspections of its method of handling prescriptions and its control over drugs. It has rigid rules to follow in the area of narcotic medication. In addition to that, we have periodic spot audit of the pharmacy.

We have a policy that night time or Sunday medications may be dispensed to a patient when the pharmacy is not open and that can be done in one of two ways: The prescription may be written and the student may take the prescription to one of the downtown pharmacies or he may be given a short supply until the pharmacy is open and then the prescription can be filled in the routine manner. Thus the various medications are available at all times to the student as well as to the hospital nurses when patients are hospitalized. During the night and when the pharmacy is closed, the hospital nursing supervisor has a key to the pharmacy. She is the only one, beside the pharmacist, who does have a key and that key rotates from supervisor to supervisor. She may have to go to the pharmacy to get 4 or 5 capsules of a particular medication needed until the pharmacy is opened the following day. We have strict rules and procedures in that regard for the security of the pharmacy, the protection of the patient and the protection of the nurse. We have a mechanism, in the facility, of internal audit for the pharmacy and we periodically go in and check the records regarding the number of medications, those prescribed and those dispensed.

AID: What was the role of Ralph Aranson, who was a Davis Pharmacist, in the pharmacy?

TYC: When we started the pharmacy initially, Ralph came out and worked part-time, maybe an hour in the morning and an hour in the evening, and compounded prescriptions. He was originally here with the idea that his knowledge and expertise were necessary in the ordering and control and the obtaining of medication. It wasn't until Gary Pichon came in that we had an 8-hour a day pharmacy where the actual prescription went directly to the pharmacy.

TYC: Returning to our description of outpatient service, those students who have been here before and have an appointment to return will be seen in the upstairs area of the outpatient department by the physician or the specialist according to the circumstances. The ten offices and the twelve examining rooms up there are kept fully occupied.

The load, as I said, is 400 to 500 a day of the 17,000 students. It is a large number of visits for this population, but none-the-less, we feel it is justified because both in the drop-in and the upstairs appointment area, more than just acute medical care is rendered. There is a tremendous amount of screening or arresting health problems such as strep throat or some other communicable disease. When seen early, we have an opportunity to be immediately aware of problems that have epidemic consideration such as a food poisoning or gastroenteritis that may occur in one of the dormitories; it gives us an opportunity to get at illnesses of students before they become serious. As important as that, I think, is a considerable amount of counseling and health education is carried on by the nurses and by the general practioners as they talk to the individual students. Service and advice are given by the specialists as they review the various complicated problems that are presented to them. So the patient is not only being taken care of but also educated in his/her own body health problems.

We have debated on numerous occasions the need for the open door policy. We've studied the cost involved and the value to the student and we have not been convinced by the studies or the debates that we should change this policy. Many of the surveys that have been conducted both by ourselves and by other areas of the campus, the Vice Chancellor's office or the Student Affairs office or wherever, have indicated that of all the programs on campus the health center program is used most by the students. And it is far and away most desired by them for an expenditure of their registration fee. We see approximately 80% of the student body at least once every year and we provide this program for a nominal cost. The registration fee cost to the student for our program this year will be in the neighborhood of $122.00 a year. In addition to that, we make up our operating budget by charging for such things as the pharmacy, special types of appliances or any care that is provided in the hospital. The budget that we are currently operating on will be in the neighborhood of 2.3 million dollars this year of which close to a million dollars comes from charges, the balance from a portion of the registration fee. Initially when the campus was new, the registration fee was used only for student health and for the athletic program or physical education. As there has been development of need for other student

TYC: services, there has been a smaller percentage of the registration fee used for those two programs and a larger percentage for other things such as counseling, the craft center, the Rec Hall, the intercollegiate and intramural activities. All are very well worthwhile programs and I am in favor of them, but it does make for a budgetary and a funding problem to which we have had to adapt over a number of years. Nine years ago we had no charges, we had only registration fee. Now, as I say, we're producing 40% of our total cost from charges and the remainder from registration fees.

EQUIPMENT CHANGES

AID: Please discuss the significant equipment changes over the years. For example, you have mentioned the defibrillation equipment and how it was used.

TYC: We have enlarged and updated the emergency room with the defibrillating equipment and crash cart and other equipment to the level now utilized in all hospitals and we have a special treatment room, an intensive care type of room where we have similar equipment and we can constantly monitor patients. We maintain this defibrillating equipment as well as pacemaker equipment because we have the facility and capability of initiating the immediate care for emergency patients to sustain them until we can get them over the immediate crisis or until we can transfer them to a facility that has the staff and the equipment to do this on a continued basis for a long time.

AID: In the laboratory, theCoulter counter and the laminar air flow?

TYC: In addition to that, we have in the laboratory the usual equipment necessary for bacteriology, the special hoods for handling infectious things such as tuberculosis sputum or stool examinations, of which we do a lot on foreign students. We also have a certified blood bank in which we maintain a minimum supply of blood at all times.

Other equipment that has increased over a number of years is in the x-ray department. We initially started off with a little portable x-ray machine. We now have grown to a two-fold x-ray equipment unit, one of which is a modern computerized x-ray and fluoroscopy unit which has automatic adjustments for patients and film size with the special additive of some new earth-type screens which cut down the radiation so that it is probably about 1/4 of what it was even as recently as a year ago. We do a chest x-ray on a student and get a minisecond of exposure and the radiation is almost infinitesimal. It certainly minimizes the danger of radiation of this age group. We used to say that if you skied in Squaw Valley for one day you got as much radiation as if you had a chest x-ray. We now say you can't even go to the hills if you want to get less radiation than you get by having a chest x-ray.

Other equipment that we have added is in the area of the operating room. We keep updating our surgical and orthopedic equipment as new techniques and procedures are developed. We recently have replaced the old flash autoclave, which was in the operating suite, with a modern automatic one so that immediate sterilization of instruments is not only readily available but guaranteed safe; as I indicated we are constantly increasing the supply of instruments and this involves central supply which replaces worn out equipment with new and improved items. The inpatient area hasn't changed a lot as far as equipment is concerned because their beds, overbed frames and other modalities that they need really aren't that different. The procedures and the medications and method of handling hospitalizations of course is in a constant state of change and each year and with each accreditation survey, we find new methods of doing things: record keeping, identifying dosages and duration of the medications, applications and so forth. So it is not a static situation. It is an everchanging process and one that is constantly being reviewed, revised and updated.

FACILITY AND PROGRAM DEVELOPMENT

AID: The clinical laboratory was recently renovated?

TYC: The clinical laboratory renovation has just been finished. We expanded it because of the increased number of procedures that we were asked to do and the increased number of personnel required to do that. I mentioned the refrigeration and the bacteriological and the blood bank equipment that they have, along with electrocardiograph capabilities. In addition to that, 3 or 4 years ago we obtained two trailers for additional outpatient space and we put them out in the back. This was a temporary measure; we hoped to fill the gap that I mentioned earlier in the original expansion of the outpatient area where we didn't have sufficient funds to build for the anticipated 18,000. Now that we are over 17,000 students, we are feeling the need for additional space. We have again contacted the Cowell Foundation to see if there is any possibility of obtaining additional funds but unfortunately, they are no longer funding. We are looking for other sources.

AID: I have an anecdote as to the reason for those trailers. A patient in the hall peeked over a screen which caused a commotion...with other patients in the hall, it was obvious that you needed those two 550 square foot trailers.

TYC: Yes, there are all kinds of things that have happened in the outpatient department. Some of them I hear about and some of them I don't, but when you get an over-crowded situation as we had then, where the doctor's office is shared by a minimum of two and sometimes three or four physicians, the duties change or as the specialists come and go individual privacy tends to be compromised at times. It is a difficult situation but one that we are very aware of in maintaining confidentiality and protecting the patients from undue exposure, but nonetheless, larger facilities would certainly make that responsibility a lot easier. As I say, we are working on it.

AID: You have had some program changes. The EH&S department moved from the health center.

TYC: When Fred Cooper was here he was head of EH&S - Environmental Health and Safety, and when he moved over to Mrak Hall as Risk Management and Safety Officer, then Dick Holdstock became head. Later, the whole department moved into those temporary buildings over along the creek where it has since expanded. Dick was here with Fred and the two of them shared the office but they soon outgrew that as their staff and responsibilities increased.

AID: Any other program changes?

TYC: Yes. Another program that has changed is the one of occupational medicine. A number of years ago I had proposed that we have an occupational medicine program. I felt that for any large enterprise the company doctor is a necessary person and the Davis campus was a large enterprise. We proposed an occupational medicine program to include such things as preventive medicine, taking care of compensation cases, maybe doing preemployment physical exams and being available for whatever else the faculty and staff might need. This program was not accepted by the administration because of the cost involved and the limitations on campus growth and, at that time, they questioned the real need for this. I don't know whether it was the concept or my analysis but an occupational medicine program gradually developed and was being provided unofficially. We would receive a call from, say the police department who were hiring a new officer and we were asked to give him a physical exam. Soon it became routine that all policemen had preemployment physicals and the same with the custodial department and the fire department. It became apparent that we did have an ongoing occupational medicine program.

AID: And you were doing it for free?

TYC: We did it for free initially but then it became obvious that we couldn't continue to use the facilities and budget which belonged to the students to do that, so if we did ten physical exams for the police department, we generated a cost and had an interdepartmental recharge to offset it. The basic program now has expanded to the extent that we have a physician doing this full-time. He has the responsibility for evaluating all compensation injuries on the campus and by Chancellor's directive they now come here prior to seeking care elsewhere. They are also reviewed here before they return to work if there is any question about their capabilities of working.

AID: Who is responsible for this?

TYC: Dr. McKinney is responsible for that. He retains some of his student health appointment but the majority of his appointment is

TYC: now as occupational physician and he has a part-time FTE funded out of Environmental Health and Safety, so he really is a staff member over there as well as here. When decisions on the campus need to be made about environmental control or how often should we screen the people in the Primate Center for tuberculosis, for example, he helps make these decisions. He was active in the outbreak of Q-fever in the Veterinary School. With Environmental Health and Safety, he set up guidelines and regulations that are now being followed in the handling of animals to prevent recurrence.

We have done research work with the Veterinary School in rabies prevention and worked with Cutter Laboratory to help develop the human rabies serum that is now on the market. You may know that if a person is bitten or suspectedly bitten by a rabid animal, he gets a series of rabies vaccine which is not without risk and is very painful. If you have a bad case where you feel that you don't have time for the vaccine then there is available a human serum vaccine which is made by taking rabies vaccine given to humans and then abstracting the serum for making the vaccine. It's like a tetanus, immunoglobulin type of thing. A lot of that initial work was done here on the campus with the cooperation of the Veterinary School and Cutter Laboratories.

The Occupational Medicine Program is now set up in the official structure of the campus as a functional item. No student money is used in it in any way. All of Dr. McKinney's salary and the nurse's salary and the supplies they use are paid for out of the Occupational Medicine budget. This budget is maintained by intercampus recharge or by charges to services provided to employees through the state compensation insurance fund or by services provided to casual individuals who come for emergency care. In addition to Dr. McKinney, this unit has a full time nurse during the day and a full time secretary/receptionist and two part-time clerks. It has grown to have an important function. It's success, though, is made possible by the cooperation of the specialists, because the scheduled physician who is here to take care of the student program will also take care of a compensation problem that arises. And the same on weekends or nights. As you know, people are working at all hours on the campus.

AID: What other departments request preemployment physicals? You mentioned the firemen and the police.

TYC: The custodians often do. Others are done at the department's request: for example, the Primate Center often requests physical exams if they are going to have a special project.

TYC: If Environmental Health and Safety feels somebody is going to be working with radioactive material and needs to be monitored carefully, they may request a pre-employment physical exam and repeated physicals and periodic evaluations.

AID: What happens when an employee suffers an occupational injury? Do you give him a return to work physical?

TYC: The campus policy, as I understand it, is that all employees are covered by compensation insurance through the State Fund. The directive from the Chancellor is that all occupational injuries should, if possible, be brought through the occupational department and then either seen, evaluated and returned to their job or to go on to their own private physician or other facility for definitive treatment. If there is a question of the employee's ability to return to work the department may request a clearance from Occupational Medicine or they may see this from the private physician providing the care. It is also the prerogative of the department to require physical examination of its employees on a routine basis if they so desire. Here in the Health Center, any employee who is off for more than 2 or 3 days must have a clearance from the occupational physician before he/she can return to work. We do that for two reasons. One, we wish to protect the individual and not have him/her re-exposed or return to hazardous situations before being capable of it and also from the public health standpoint. We are not desirous of having an employee who hasn't completely recovered from the flu or some other illness to be caring for patients.

AID: I'm thinking of the close cooperation between the Health Center and the Department of Physical Education. In 1972 the women of the Health Center crocheted 98 blue and gold stocking caps to warm the ears of the football players. That was when they went back to Atlantic City for the Boardwalk Bowl.

TYC: It is interesting the relationship between the Health Center and the athletic department. You mentioned the women crocheted the hats. For 24 years I have been the team physician for the Aggie football team and incidentally have not missed either a home or away game in that period of time. Flying an airplane made that possible. I would fly up to Humboldt and work the game and turn around and fly right back. I don't do it in such a hurried manner anymore but I still participate because it is an interesting thing to do and a lot of fun. It all started with the concept that physician and medical assistance are needed in the athletic area. Later on, in President Kerr's term, a directive was issued by the President of the University that the health service should be responsible for care for athletic injuries. We provide such care

TYC: to all athletes in the intercollegiate program including a free participation physical examination and they are not permitted to play unless they are cleared by us. We provide all of the emergency service that is needed and the definitive care within the limits of our capabilities. When an event requires physician participation, a physician is there. I attend all of the varsity events and one of my staff will be at the junior varsity football games. We do not participate actively in the basketball games and some of the other events but are available in case the need arises. As a result of all of this, members of the athletic department and the participating students are frequently seen here. In addition, one of our long time employees, Mrs. Betty Lewis, who is in charge of the record keeping, is the wife of Dick Lewis, who was athletic trainer for a number of years. That gave us a personal tie and the incident that you refer to, the crocheting of the hats, was when the Aggies had a big winning team and they were going to the Boardwalk Bowl in Atlantic City, and everybody over here was all excited about it; Betty, I'm sure, stimulated much of that excitement, and they all decided to do something special. The coaches still wear the hats.

AID: You had quilting bees and pot lucks, halloween costumes, and Wild West Days?

TYC: Yes, throughout the number of years, there has been an enormous amount of talent displayed by various members of the Health Service staff and on occasions such as Halloween or Wild West Days, in order to add a little variety to the routine, costumes were worn and they take pictures in costume and award some humorous things to the person wearing the best costume. The potluck is, I believe, probably unique in a campus organization. I know that some departments have such but I don't know of any that have it to the extent that we do. Any event that is of some magnitude such as a person retiring or a person receiving a 20-year pin or some other outstanding service award, or such, the staff has a potluck in the evening or maybe during the noontime lunch. Staff members bring various dishes and they seem to have an internal organization that takes care of it. We just had our annual Christmas party over in the Rec Pool Lodge as an example. We enjoyed an amazing quality of food. We must have a tremendous number of excellent cooks.

AID: Gourmet cooks?

TYC: Gourmet is the right word.

AID: And wasn't there a cookbook that was sold?

TYC: That's correct. They developed a cookbook of recipes that were outstanding, then sold it and put the money back into the entertainment fund and social budget.

AID: On the convalescence of Faye Baker, they presented her with a quilt which was Betty Quick's idea. Friendship quilts have been made since then by the women of the center for special persons on special occasions.

TYC: That is all very true. It is a marvelous thing that they do. It is not a structured program. It is not part of the Health Center operation. It is just a thing that the staff people do for each other and I think it does exemplify part of the dedication of the employees to this program. When I mentioned earlier about the physicians, I should have very strongly emphasized the fact that this dedication to the Health Service program is not limited to only the physicians, it is evident in the nurses, it is evident in the staff, it is evident in the custodians and just everybody.

I feel certain that we have more 20 and 25 year employees in this department than most any other department on campus. For example, Mrs. Dunning is almost 30 years as head nurse. I think that it is this loyalty and attitude that this is their life rather than a job, that has contributed so much to the events that you are talking about here and to the total dedicated service the students get. For example, one of the new clerks was assigned to work on Thanksgiving evening; we have to keep the operation going, of course, through the holidays. At 6 o'clock in the evening an emergency developed for her and she was unable to come on duty. She called, not me, not the administrator, but her boss, Ruth Burroughs, who is head of the outpatient reception area, who said, "Fine, you go right on and I'll take care of it." Instead of hunting around and trying to find somebody else and disrupting their holiday, Ruth personally came over and worked the shift herself. It is this type of loyalty and dedication that is so evident here every day. One doesn't have to sit back and worry about the details of the operation as it takes care of itself.

RESEARCH PROJECTS

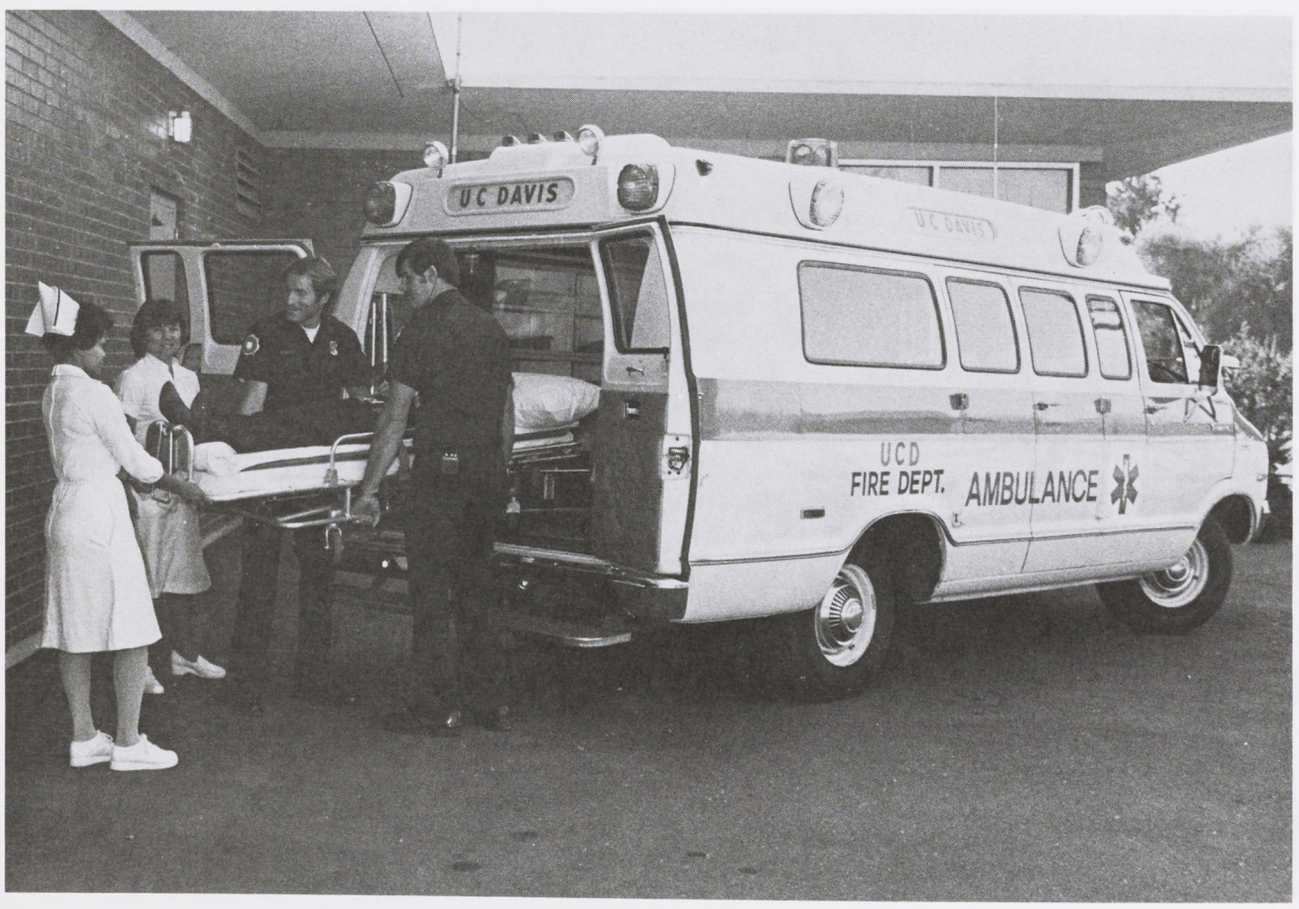
AID: The Center has had several uncommon research projects. For example, in 1967, the Sacramento Bee reported that 10 students were in a space research program to test the effects of inactivity on the body.

TYC: Yes, this was done through the grant that the medical school received from NASA. The program was carried on mostly during the summer at which time our facility is obviously less active that it is during the regular school year. They rented several hospital rooms where they put these patients in a continued bedrest environment and then measured their body functions and chemistries and so forth. It was a method of cooperation with the medical school and another campus unit. It was also to our advantage to derive some income from the beds that we wouldn't normally use during the summer.

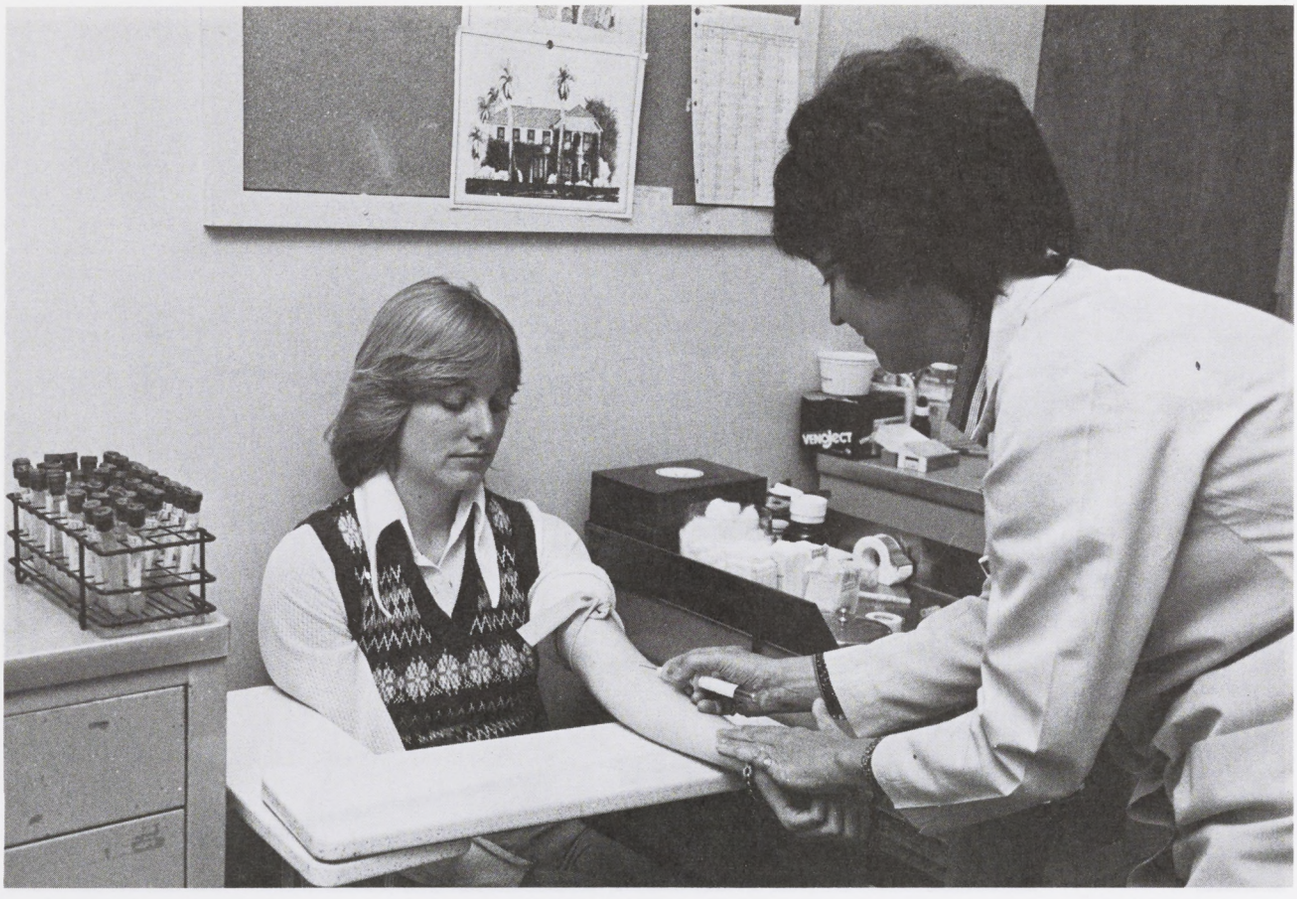
AID: Are there any other unusual research or health related situations?

TYC: We had a research program going for the last several years with Dr. Chang of the Medical School concerning infectious mononucleosis. He came over with medical students and would see these patients and run cultures. We also were very active initially in the physical fitness, weight reduction - exercise program of Jack Wetmore's when he was here. We provided the medical surveillance and EKG monitoring equipment and I served on the committee that reviewed the results. This program has now grown so that we couldn't do it any longer and they have paid people who do it now.

East Hall the 'Infirmary'

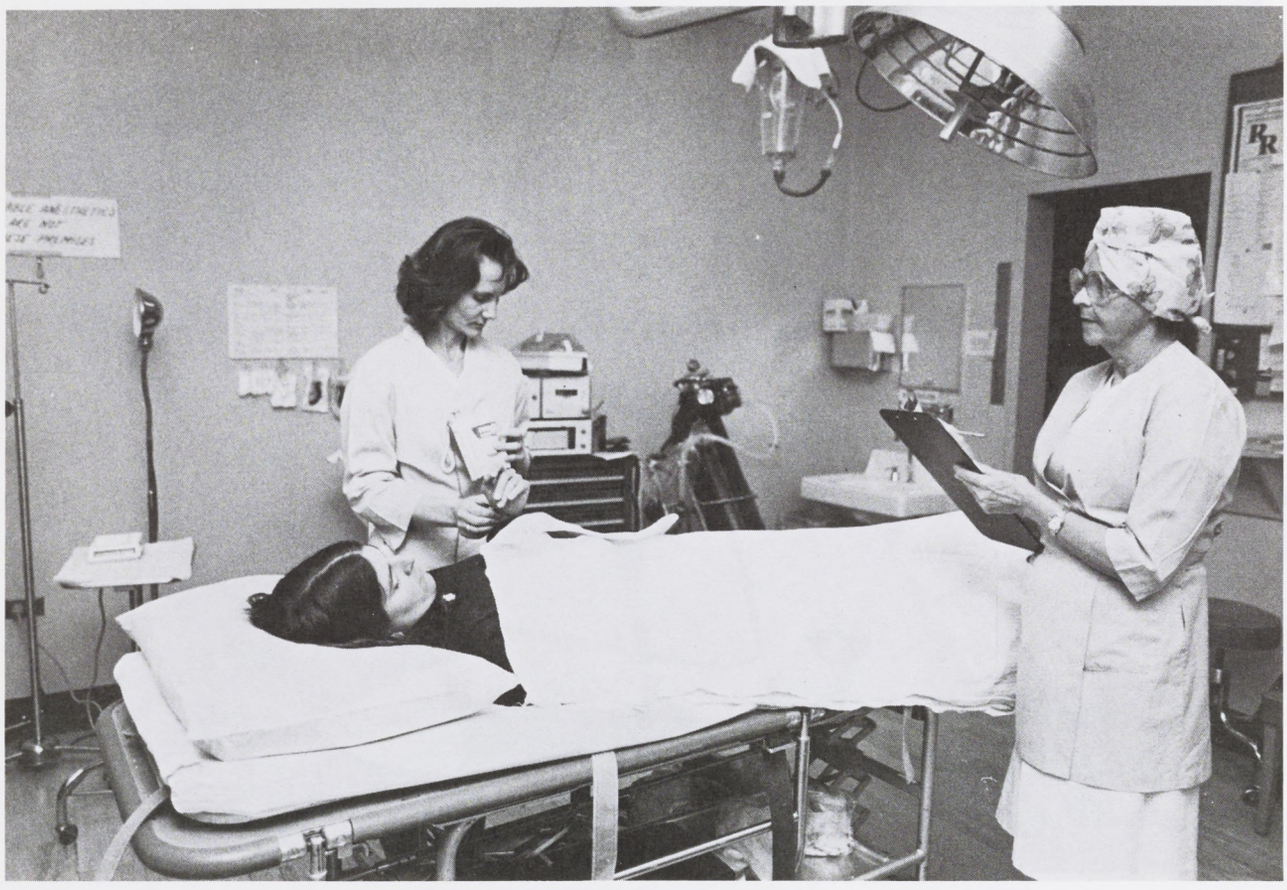


Arrival of the UCD Ambulance

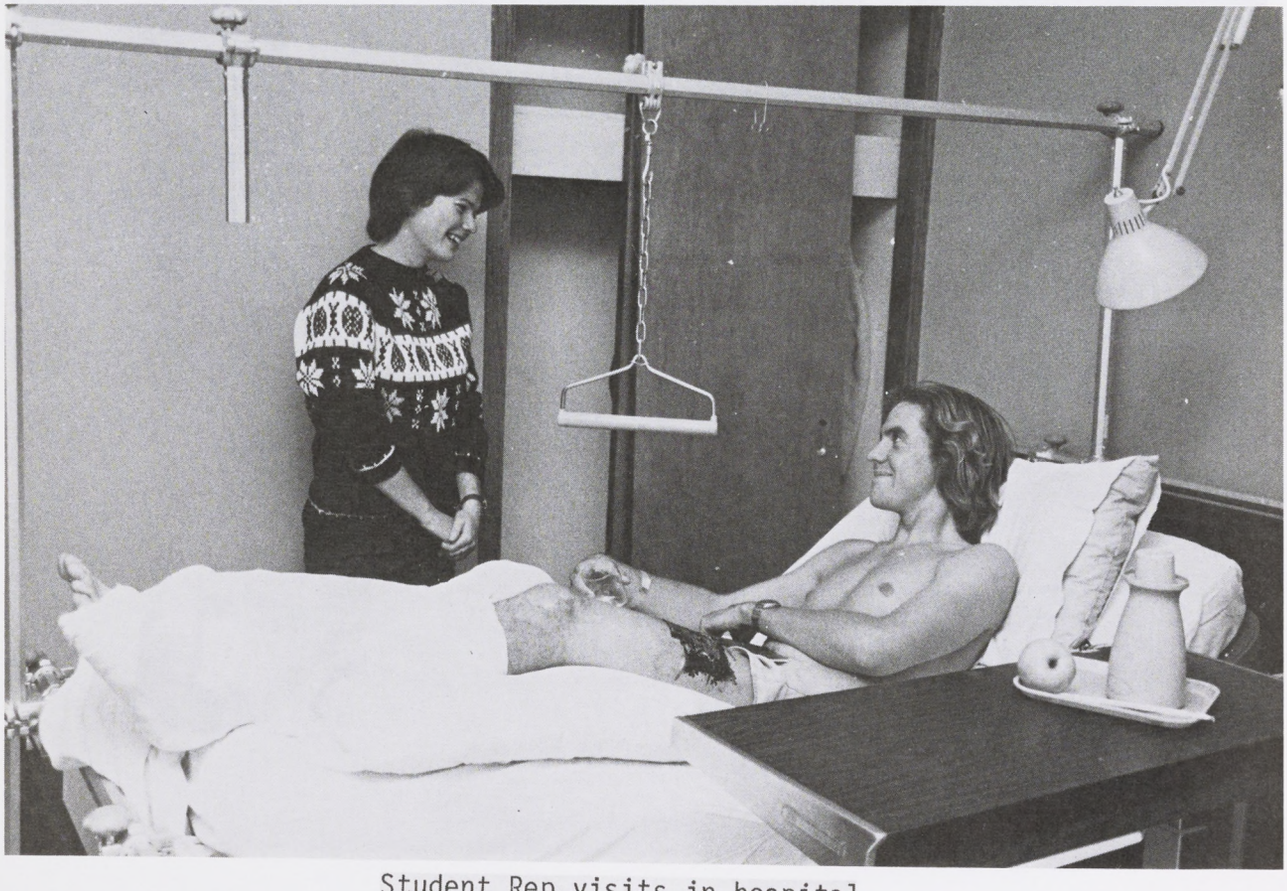


Laboratory action

The Antigen Clinic



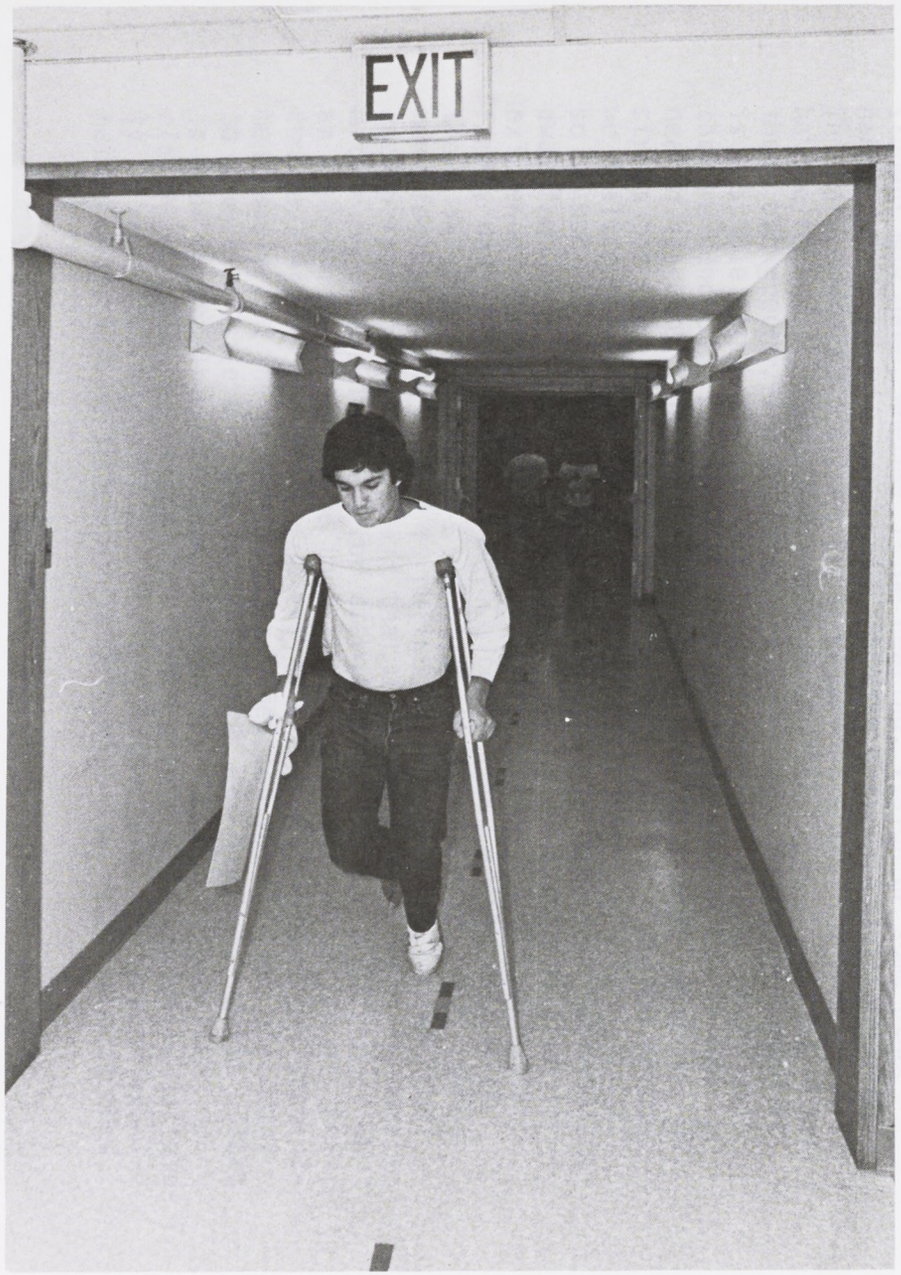
The Emergency Room crew



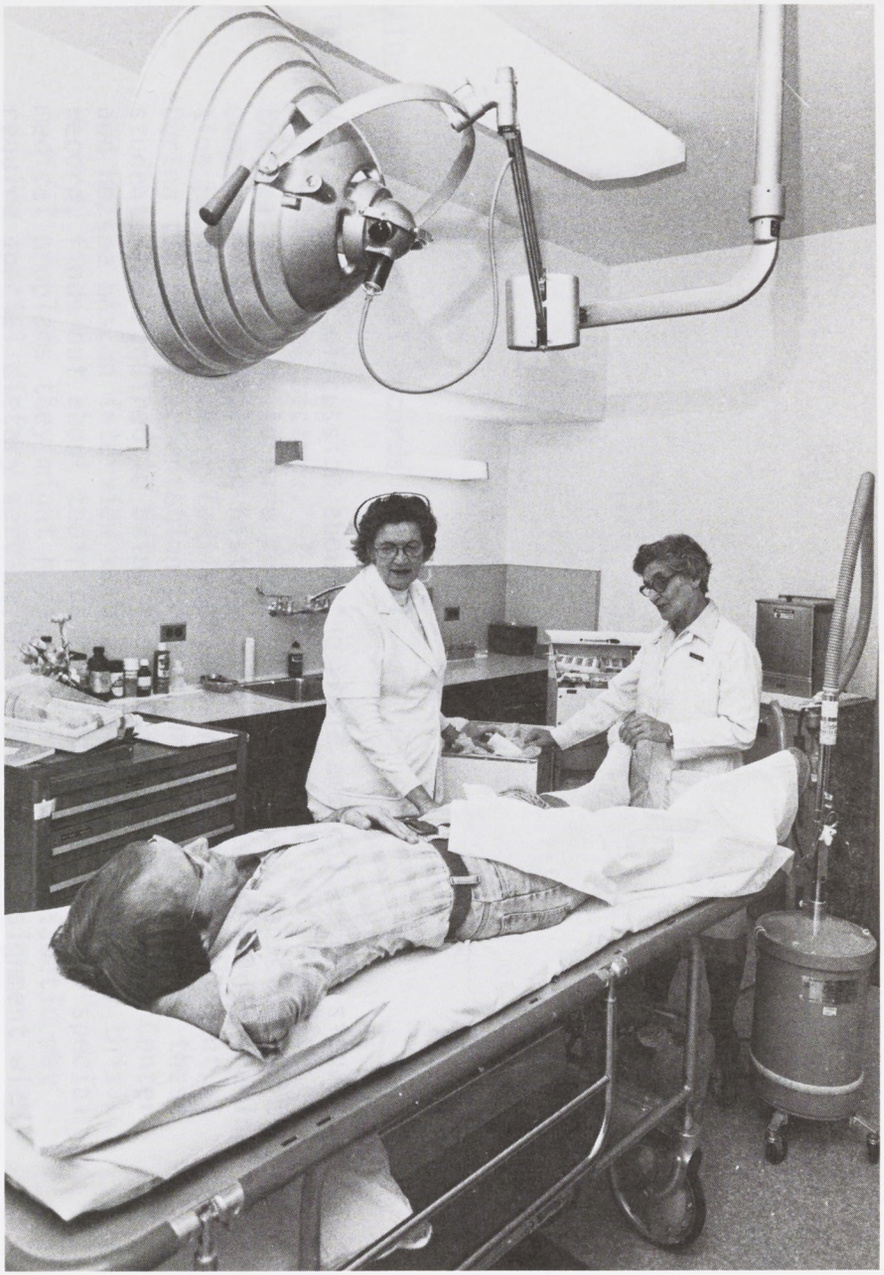
Student Rep visits in hospital

The Radiology & Fluoroscopy Room

Outpatient Screening by Nurses



Headed for the cast room?



Applying a cast

MEDICAL RECORDS

AID: How are medical records handled?

TYC: Well, a brief discussion about the whole medical record situation will clarify the picture. I have said that it is the policy of the Health Service to have every new student who registers on the campus bring a completed history form and recent physical examination performed by their family physician prior to enrollment. During the summer orientation program or during '0' week, these students are required to bring those forms to the Health Center and he/she has an interview with a physician who reviews this record, finds out about their past, finds out about any special medical problems they might have, for example, a diabetic may require special dietary service or special room assignment with a refrigerator if he/she keeps insulin there, and so forth. We find out about allergic problems, about handicap problems the student may have, whether it be hearing, vision or some other handicap, so that we can assist them in their academic persuits. This procedure also allows us to establish them as a patient. We have a record on them then, we know who they are, something about their background, who their parents are. And we know as much as is possible about their medical history in the short interview that we conduct. We also make available to them at that time a health handbook which explains how to use the health service. We stress the fact that we are not trying to be their doctor because we realize they're going to be here just a short period of time, so we use the phrase that we're their family doctor while they are away from home. Any problems that develop or that have been in existence, we communicate through the student-patient with their family physicians and thus have a cooperative arrangement with their own doctor. When a student comes to the outpatient department for care, the record is pulled and the physician makes the appropriate entry. I've said that we allow the students to come either on a drop-in basis for emergencies or minor ailments or on an appointment basis where they are seen by the physician of their choice. Any of the follow-up visits are always made on an appointment basis and the physicians are scheduled to see them according to time available and the convenience of the student. Great effort is made in appointment scheduling to try to work around their classroom schedule, because our goal is to assist students; certainly to take them out of class for a relatively minor type of examination would not be in keeping with our policy. The records then

TYC: in the outpatient department are brief notes about what happened.

If the clinician finds something that requires a specialty consultation, such as a possible appendicitis, then he has available to him a surgeon, on call, and/or a surgical clinic to do the routine consultation. The emergency consultation is handled on a 24-hour basis by, as I have said, specialists on call in the fields of surgery, orthopedics, psychiatry, internal medicine and obstetrics and gynecology. We also have specialty clinics in ear, nose and throat and in dermatology, that can be utilized as a consulting mechanism for the general clinicians. The details of that visit are dictated or written by the surgeon in a true consulting manner and this record is then maintained in the chart. If hospitalization results, then the chart goes with the patient to the hospital but while in the hospital, a separate chart is kept which identifies all of the pertinent problems; the medical notes, admission history and physical examination, the nurses notes, the drug record, temperature chart, etc. are all set off in a separate folder for the hospitalization. Upon discharge, that folder then is inserted into the original outpatient chart so it is in the back of the outpatient record and immediately is available for any references needed when a student comes in for follow-up care. The major jacket that houses the record also now houses a subjacket which is a record of the hospitalization. That subjacket is placed then in the major jacket and any other hospitalizations are subjacketed in the same way and placed in the major jacket. So the major jacket contains the outpatient record, but it could also contain one or many subjackets, depending on how many hospitalizations occur during a student's enrollment.

Separate from the notes that the clinician or specialist makes, the record contains some administrative information regarding availability of health insurance, family information, home addresses, phone numbers and so forth so that in case of emergency or whatever need might be, this information is readily available. The record also contains a section of laboratory reports for various tests that have been performed. It contains a section on x-ray reports that are made by the radiology department. The medical records librarian is responsible for the quality of these records and their accuracy, as well as the material in them; there is a constant review to see that these records are kept in an acceptable manner according to accreditation standards of quality.

AID: Dorothy Dunning told me a change in filing the records was made many years ago from alphabetical to numerical.

TYC: Yes. As the student body grew, a number of years ago we were finding that it was increasingly cumbersome and difficult to find records. To file alphabetically a series of records, then to have a new group come in and to insert records into that file meant

TYC: that the whole file had to be changed, moved over, new ones inserted and so forth. It became not only very difficult to keep the records in the proper alphabetical order but also for the girls to find the chart in an alphabetical search because there may be, for example, 1000 A's and they had to thumb through all of them. So we conceived the idea that if we were to take the students' names and set up an alphabetical rand file when we see them initially, we would assign them a Health Center number which ran chronologically so that when a student came in for care, all we had to do was look in the rand single file card and identify the name which carried along side of it their student health center chart number. It became a simple matter to go to the big record stack and find the number which ran in sequence. It also afforded an opportunity for us to age charts better. Many of the student/patients that we have are here for four years and then are gone.

We could, for example, say that number 100 was the end of the year of 1940 and number 1600 was the end of the year 1941. If we decide to keep the records for the last 10 years in the active records out in front and records for preceding years in back storage, it is simple to go by number. So we instituted that system and it has worked very well. I am not so sure that all of the people were 100% enthusiastic about it when we started because it was something new, but I'm sure those working in the records would be the last ones to want to go back to the old system.

AID: According to my information, Ruth Burroughs was here at the time of the change which was around 1960 and Rose Banninger came a couple of years later and they are both still in records, I think.

TYC: That's true.

AID: You also microfilm records now?

TYC: We are microfilming now because of the space problem and here again, a number system works out very well because we can decide that we are going to microfilm the charts beyond 10 years and we know what number that is so we can take everything beyond that and microfilm it.

AID: So you started with number 1 back around 1960. Where are you now?

TYC: We are up now, to number 100009.

AID: How do you maintain record security and the confidentiality of records?

TYC: We have a pretty rigid policy on record security and confidentiality. Any information therein is released only over the signature of a student authorizing such a release or by court order or subponea. We do not release information of student activity in the Health Center to the administration or to the Deans unless there is a decision made by me that for some administrative reason or campus safety or some other vital reason, I must take this information and do something about it as an administrative person. Recently the law has been changed to indicate that that is an accepted and a valid practice. A law passed by the State of California last year requires in the event a therapist gets information of something that may be a threat to an individual, he now is obligated by law to inform this individual. Specific example was a psychiatrist treating a patient who was informed by the patient that he was going to kill so and so and the patient did so. They have now made it a law that the physician is obligated to inform those concerned so that confidentiality is not breached in doing that. With the exception that all medical information is kept confidential.

The problem of record confidentiality is an ever-increasing one with so much legal activity. Everyday we get one to five requests for copies of charts to be sent to attorneys because there have been auto accidents or some other incidents in which attorneys are involved. The public is being fooled, unknowingly, by this access to the records which they have individually authorized. We try to prevent that from happening in some instances. For example, we might get a letter of request from an attorney, with a signed authorization from the student, stating they are representing the student with regard to the automobile accident in which the student was involved and was treated here for injuries. We review the chart and prepare to comply with the request of the patient and find that in addition to treatment for injuries from the auto accident the patient may have been treated for venereal disease or an unwanted pregnancy. If we run across something like this, we contact the individual and say, "Are you sure you want us to send the entire record as you instructed by your signature authorization?" I then advise them to go back and have the attorney write us another letter stating explicitly what information is wanted.

AID: How are you compensated for your expenses in this?

TYC: It is all part of the program and it is an ever increasing one. That is why Ruth Burrough's staff is bigger than it used to be. Another problem that we have in this regard which I think is personally rather dangerous is the individual's right to see his own record. "That's my record, I have a right to look at it." Yes, I agree that they have a right to look at it but the problem is in its interpretation. For example, when I write something in the chart about student X, it means something to me in that I use certain phrases to reproduce a thought or an observation or a prescription and if read by a non-professional person, namely the patient, he/she may get a different meaning. For example I

TYC: might say that a female student is heavy and slightly pale and looks ill. And the girl reading that might take offense by thinking she is being called fat and sloppy. We have established the policy that if a student wants to see his or her record, we say by all means you may see your record. It is our record though; it isn't yours. It is one that is made by us to remind us of what we have done for you but you are privileged to look at it and read anything you want. However, you must do it in the presence of the doctor who wrote the record so that you can ask the questions that come to your mind and get them clarified so you won't get a misinterpretation of what's there. It has proved very helpful to do this. However, it is, as you say, very time consuming but that is part of the game and if we want to keep a good program, I guess that is what we have to do.

AID: What system of control do you have over the records so you don't lose any?

TYC: Wherein humanly possible, the record is never left with the patient. It is never put in a position where the patient has access to it without somebody being there. If you walk around the building, you will notice on the treatment room door a slot outside the door rather than inside the door and the same with the cubicles, out of the reach of the patients to reach up and read the chart while they are waiting to be seen. We also do not ever give the patient the chart if it is to be sent from one area to another. We never say "Here, take your chart and go see Dr. Y?" We say, "You go see Dr.Y" and we will have the nurse take the record or we'll take it ourselves. The same with the laboratory, x-ray and so forth. We always do our own hand carrying and own transfer of the charts. It is a tedious procedure but it has paid off.

AID: I suppose the attending physician occasionally will misplace it, unintentionally of course?

TYC: I don't know whether you have heard the story about me or not. Just recently I was counseling with a student and making some recommendations on his academic activity and I had also done some medical work on him and was making a note in the chart when they called on the pager and said they are ready for you in the operating room. I took the chart with me and set it up on top of the locker and changed my clothes. After we finished the case, I got out, changed clothes and went home. The next morning they said we have lost the record. I said I left it on Dorothy's desk where I always do - there was no question about that. Well, it wasn't there. After two days of looking and two days of hounding and bugging me, "Are you sure you don't have the record?", I remembered, went back and retraced my tracks and sure enough there it was on top of my locker. One of life's most embarrassing moments.

THE DIRECTOR

AID: I'd like to get a bit more of Dr. Thomas Cooper into this record. Will you give us your date of birth, where you were born, when you came to Davis, and the highlights of your growing-up years?

TYC: I was born in Gallatin, Missouri, February 15, 1922. My father was in practice in Gallatin at that time. He then went into World War I and upon return decided that he would not practice in Gallatin and came to Davis. He heard about Davis from his sister, Maybelle Howard, who had come to Davis several years before with her husband, Walter Howard, who became the first Director of the Davis campus. I believe it was then called the University Farm. So Dad came to Davis in the early part of 1923 and decided that he would stay. Accordingly, mother brought me and my older brother to Davis and I've lived here ever since.

Initially, we lived in a little stucco house up on 5th street, later moved into a house on the corner of 2nd and D, which has since then been removed and is the site of the Bank of Dixon. We then moved to the home where my mother still lives, on the corner of 4th and F, which was built in the early '30s. The homesite, interestingly, was the site of the original Davis Community Church which had burned down and the foundation of my mother's home is realy partly made up of the foundation of the old Community Church. The house, as a result, has a full basement which has been used by our family to a great advantage. I grew up in that house and attended the Davis Grammar School which no longer exists, but was where the Arden/Mayfair lot, as they call it now, is used as a parking lot. From there I went to high school, there was no junior high in those days, in the red brick building that is still on Russell Blvd. I participated in many of the extra-curricular activites of the high school, in student government, having been president of the class, and in the athletic program playing football, basketball, track and tennis, receiving letters in all of these sports. The class size was very small. My graduating class had only 20 members in it and as a result we had excellent individual teaching because of the quality of teachers and the availability of personal instruction. Many of my instructors and teachers are still living. Some of them are patients of mine now in private practice, namely Dewey Halden and Myrtle Fisher (who was then Myrtle Rowe). Dewey was the P.E. teacher and the coach of the athletic teams. Other outstanding teachers of mine who are still living nearby include Del Marshall, Claire O'Brien and Marguerite Montgomery.

TYC: Following high school graduation, I attended the University of California at Davis for two years and then transferred to the University of California at Berkeley where I finished my third year, pre-med, and received my Bachelor of Arts degree. World War II was then going on so my medical school education through the University of California in San Francisco was on the speed-up program in which I went three semesters a year and finished with my M.D. degree in February of 1946.

The Davis campus is very vivid in recollection. It was a fine small campus, with small classes and a considerable amount of personal contact with the professors. We had, even in those days, a very active athletic program and I was fortunate enough to participate in that, receiving a letter in the basketball intercollegiate program as a freshman. I did not follow up with intercollegiate athletics here because of the pressure of academic pursuits and the immediate transfer to Berkeley the following year into pre-med and then on to the medical school.

AID: Was there a time in high school when you had to wonder what you were going to do or did you always feel you were going to go to med school?

TYC: Oh, I think there was a time when I was wondering what I was going to do. I think that I left my choice open, but decided to take a pre-med course to see if medicine was what I wanted to do. I left the option open, because I have always been somewhat inclined in the mechanical area. My grandfather Yates, my mother's father, was a very handy individual and I used to, as a child, spend a lot of time with him making cabinets and furniture and working with tools and I always enjoyed that and still do. However, I certainly admired my father and what he was doing.

AID: What advice did your father give you?

TYC: My father never really gave me any advice. And I associated with him mostly in our home environment, I really had very little association with him in medical practice. As a small child I would go with him periodically on house calls. I did not work in his office and Dad was a physician who felt that what went on in the office and with the patients belonged to his medical practice and when he came home, that that was home, and the two did not mix.

I apparently adopted the same philosophy, because when my wife used to say, when I was doing obstetrics, "Oh, I hear that Mrs. So and So has had a baby!" and I'd say; "Yes, I delivered her yesterday", and she had found out from the neighbors about it. But it's better that way and then you're never in any danger of breaching patient confidence.

TYC: I have two brothers. My older brother, Clarence, is a half brother; his mother died when he was an infant and Dad remarried my mother; her name was Allene Yates, and I and my younger brother, Earnest, were the products of this marriage. Clarence is still in Davis. He is active in Cooper and Son Insurance down on 2nd street next to the Varsity Theater. My younger brother, Earnest, is in Oakdale working in the Hershey factory there. He is the supervisor of the warehouse; he does the purchasing and the obtaining of materials that Hershey uses in candy making.

I knew Elaine, my wife, as a high school friend and later as a girl friend. Her maiden name was Edlefsen. Elaine's folks came to Davis, before she got into high school, and of course, brought Elaine and her sister Ruth with them. Elaine's father was a member of the faculty in the Irrigation Department. He got his degree in Physics, and prior to coming to Davis worked with Lawrence in developing the cylotron. The first model, the first papers that are out on the cyclotron are jointly edited by N. E. Edlefsen and Ernest Lawrence. He was a professor here on the campus, as I say, in irrigation doing a fair amount of study and research in soil and soil water transfer and working with thermodynamic couplings to figure out the moisture of soil and proper irrigation procedures. I worked with him more than I did my father, during two summers as a University employee. Earlier summers I worked for the University building and grounds, helping in the carpenter and painting work.

During the war Elaine's folks had gone back to Boston as her father had taken a temporary position with MIT where he was doing research work with the Federal Government in association with the war effort. After an absence of a year, it became apparent that the phone bills were too expensive and that things weren't working out that way, so Elaine transferred back to Berkeley where she lived in a rooming house not very far from me and then, of course, that soon cemented our relationship. We were married in February of 1944. As a married student, I continued on with my medical education, which for the first year was in Berkeley. We took first year anatomy and physiology. Then our second year was in San Francisco where we learned clinical diagnosis, pharmacology, and so forth. And we spent a considerable amount of time in Laguna Honda Old Folks Home learning clinic diagnosis. The third year of medical school, in those days, was at the County Hospital in San Francisco, where we got our introduction in therapy, patient care and operating room technique. Then our fourth year back on the hill at 3rd and Parnassus where we did our outpatient clinical work and hospital work there. Upon completion of medical school, the war was still on. I had been a member of the Navy Medical Training Program and consequently was obligated to serve two years in the military following graduation. So I interned in the naval hospital at Mare

TYC: Island and then subsequently was transferred to Oak Knoll; I served in the Marine Base in San Diego and in a dispensary downtown San Francisco. I was there at the time my father died in 1947 (December 26) and was at that time signed up to have a surgical residency in the military, prior to discharge, as we had decided to stay in the military for a period of time. I had always felt that I would go on and be a surgeon and I sometimes wonder what my life would have been like if I had. But with Dad's death, the question of his office and practice arose, and mother being here by herself, we decided that we would leave the military and come back. Dr. McKinney was here, as he had been with Dad a few months prior to his death. So Dr. McKinney and I started in practice together.

AID: What was it like going directly from Navy medical practice into a regular clinical practice?

TYC: It wasn't that much different because fortunately, most of my clinical experience in the Navy was at Mare Island which was a small facility. We did a lot of family practice work, obstetrics and surgery in the hospital there. So I felt that I was well experienced in these same areas that I would have in practice. I now hold a specialty board in Family Practice, but I did this as an ongoing study program for this board preparation after I was in practice. Another interesting thing happened that has played a vital role in my life: when I graduated from high school, I took the civilian pilot training program which was given then at a little air field out by the U.S. Forestry nursery on the highway. In taking this CPT program, one agreed that in the event of a war, you would go into the Air Corps. And I signed that agreement. When I completed the program, I finished my two years in Davis (UCD) and went on to Berkeley, as I have said.

AID: Had you soloed in this program?

TYC: Oh yes, I had my license to fly in 1940. Of course, as a student I didn't do very much flying because of the cost. But then when World War II broke out, I was obligated to go into the Air Corps and they sent me notice to report for duty and I did so. At that time they found out that I was already in medical school as a freshman and they decided that priority was greater than their need for me in the Air Corps. So in a way, it was the government's decision that I ended up in medicine.

As far as flying goes, I didn't do very much of it during the war or in medical school, but after coming back to Davis, I decided to reactivate myself so I would rent an airplane to fly. It became more and more of a hobby and something that I very much desired to do. So I bought an airplane in, oh, its been over 25 years now that I've owned an airplane. First a little single

TYC: engine one and then later a small twin airplane. The first one was a Cesna 172, and I bought it from Ernie Hartz, the Ford Dealer. He wanted to get a bigger airplane, so I bought the little one. I later sold it and bought the Piper Apache, which is a twin that I used for eight or ten years. About 11 years ago I traded it in on the twin Beach Baron which I still have. And I fly, probably 100 to 150 hours a year, keeping my commercial instrument rating current. I use the plane a lot in travel for various affairs. We plan our vacations around medical meetings and we fly to those. I fly for the University to meetings in Southern California, often taking some of the staff with me. I fly for the University when I work with the football team.

AID: The fact that you haven't missed a game in 24 years indicates that you can fly in pretty bad weather.

TYC: That's right. I have flown in some very interesting weather. For example, 4 or 5 years ago, the game was to be played at Humbolt on Saturday evening. The team left Friday morning on the bus as they usually did. Rolf Benirschke was the field goal kicker, and Rolf also played soccer. (Rolf has just been forced to quit playing with the San Diego Chargers because of illness.) But he is a delightful fellow, and I got to know him very well because of these trips. He had a soccer game on Friday at Stanford and couldn't travel to Humbolt with the football team, so they asked if I'd bring him up. I said sure, I'll bring him up. We met at about 8 or 9 o'clock on Saturday morning; I had checked with flight service about the weather and they said there would be some weather, probably occasional rain showers but not really very bad. So we took off about 9 in the morning. By the time I got to Woodland it was overcast, by the time I got to Redding I couldn't see my wing tips, we were in solid weather and it rained hard on us all the way into Arcata. We started down the approach and we heard the control tower talking to Hughes Air West and they said, "We're going to make a mist approach, we can't find the field". So they made me hold at the outer marker, which is a standard procedure and you practice it all the time, you make a circle around and wait your turn. Well as I made the first circle, all of a sudden the gauges jumped from the right to the left, which I thought was rather odd; I quickly figured out that I was being affected by a 50-knot cross wind. As I turned to go South, I actually ended up going East. It took me several minutes to get back on course. At 50 miles an hour, that's like trying to steer a boat across a rushing stream, you really have a lot of maneuvering to do. So we got back up on the glide slope and everything was coming along. The tower called me again and asked "Are you all right out there"? We went through a cloud right over the airport and when we came out we were off by the width of the runway; had to get back on. We landed and taxied over and I asked the tower to send the gas man down so we could get the plane filled up so we'd be ready to go back. Elaine opened

TYC: the door and the wind caught her coat; she jumped out to get it and it was floating in 4 inches of water. I turned around and looked at Rolf, and he was just as white as my coat. I said; "Rolf, how do you like this private flying?" "No goddam football game is worth all this!" John Chase, the orthopedist, was with me also. He was on call and he wanted to get home that night and so he had made arrangements to fly out with Hughes Air West at 10:00 o'clock when the flight left. Elaine took him out through the water and the sandbags along the highway and got him to the airport. They heard the airplane circling overhead so Elaine went back to the football game. The next morning we went out as it had cleared and we were ready to take off when this fellow hollered at us and said "Hey! can I ride back with you?" and there was John Chase. He had slept in the airport all night because when the Hughes Air West came in, it landed hard on the runway and broke its landing gear. There it sat at the end of the runway. So we took off and waved at the Hughes Air West as we went by. I love to fly and I belong to the Flying Physicians Association of the Western Region, California and Arizona. I belong to the national organization also and I am on the Board of Directors for the National Flying Physicians and have helped with many programs in aviation medicine. The national organization meets in the West, Central or Eastern part of the United States in an alternate manner. You get to see a lot of the country that way as well as meet a lot of enjoyable people who have two main interests in common, medicine and aviation.

AID: I have these figures....in 1961 you were the president elect of the Pacific Coast College Health Association. They are affiliated with American College Health Association. In 1967 you were the head of the Administrative Section of the American College Health Association. In 1974 you were elected to the Council of Delegates. In 1971 you became a charter diplomat of the American Board of Family Practice. In November 1977 you celebrated 25 years as a U.C. employee.

TYC: That's correct. Shortly after becoming Director of the Health Service in 1956, I became a member of the Pacific Coast College Health Association. And as you indicated, was president-elect in 1961 and then president, and have been on the executive board of that organization as a past president ever since.

AID: Tell me a little about the Health Association.

TYC: The Pacific Coast College Health Association is an organization that is made up of directors or heads of college programs in various different campuses whether it be a university or junior college or a state college and it has common ground for discussion

TYC: and medical presentations and a formal educational program once a year. It is an affiliate of the National American College Health Association, which also meets once a year, in the Spring, and the Pacific Coast College Health meets in the Fall. The Pacific Coast College Health Association is really a more fun organization in that you get to know the people better because they are close by, in Washington, Oregon, Idaho, New Mexico, Western Canada, California, Arizona, Utah, Hawaii, and Nevada which makes up the Western region. At the National meeting we get to know, of course, a lot of people and I have some dear friends that we learned to know, namely, Don Cooper (no relation) who is the Director of the Health Service and team physician for Oklahoma and Paul Trickett who is the Director and team physician at Austin, Texas. I could name many more.

AID: Do these associations have any overseas meetings?

TYC: The only oversea meeting officially is the University of Hawaii which is in the Pacific Coast College Health Association, where Don Char is the Director. We have visited him on a couple of occasions and of course he is over here every year when we have our meeting.

I presented a paper at the International College Health Association in New Zealand last year. At this meeting there were people from Australia, Hong Kong and from some of the South Sea Islands as well as members from the United States. This International Association is a very interesting and valuable meeting to attend and we enjoyed it very much. It isn't one that I can continue to have much activity in because of the distance and the expense involved; nonetheless, we made acquaintances and contacts with whom I still communicate by mail frequently.

One more thing about the American College Health Association. It is made up of different sections: Administrative, Nursing, Dental, Athletic Medicine, Psychiatry, and so forth. And for some time I was the chairman of the Administrative Section and had the opportunity at one time to put on a program that was earth shaking, in a way. I titled the paper The Dispensing of Contraceptives in a Student Health Center. This was a number of years ago at which time such a thing was very rarely done. We were scheduled to be in a small room with about 30 or 40 people and next door to us was a large auditorium for the Medicine Section on the topic of Tuberculosis; they expected 100 to 150. It soon became apparent that there was nobody in the large room and there wasn't enough room in the small room so we had to switch. That showed the national impact of contraceptives given through the health service. It's interesting how dispensing contraceptives happened here, because it wasn't my sole decision. As I have said, we have a unique Town and Gown relationship. Our students who wished to learn about contraception

TYC: would be seen, mostly by the gynecologists; we weren't using the general physicians for this. The gynecologist would examine them and say, "I will be happy to give you a prescription or I will fit you for the diaphragm....but we can't do it here because it is against the policy of the Health Center. So if you will come to my office, I'll give you the prescription over there". This happened often enough to become uncomfortable to the staff and we said, "Why do we have to be two-faced; we're counseling them, and they're going off campus....so we want to give that service here". I worked with the campus administration and we decided that we would go ahead and do this, setting up a program that involved no registration fee money but was self-sustaining. We charged the students for the service including examination and prescription. That policy is in effect now.

The contraception program was set up so that the particular needs of the individual would be met as determined by the examining physician either one of the general clinicians or the gynecologist if it were a special problem. There are available all forms of contraception whether it be a mechanical contraception such as an intrauterine device or medicinal one of the various different pills and prescriptions that are available. If a problem requires a type of prescription that doesn't happen to be one that is frequently used, we might not have it in the pharmacy but we can get it or the student may take the prescription to an outside pharmacy and get it filled.

AID: Is it possible for a student as an outpatient to go directly to the pharmacy and get birth control pills?

TYC: No. A student may go to the pharmacy and get some of the birth control supplies such as condoms or cream or something that doesn't require a prescription but anything that requires a prescription must be obtained from the physician. The physician must also prescribe for a refill of birth control pills.

After we had that contraceptive program for a year we saw that it was accepted by the students who felt it was a necessary service for them. I presented this to the National College Health Association meeting and as I say, it was really an earth shaking presentation.

The other thing that's nice about the College Health Association: as team physician I associated in these meetings with the team physicians of the big schools and it's a thrill to spin yarns with them, talk to them about their various programs and some of the equipment they have that we don't and vice versa. At one of these sessions I gave the paper about the cardiac arrest and of course they were very interested in that.

AID: Please cover a typical day, from the time you get up until the time you go to bed at night.

TYC: I usually wake up and start my morning at about 6:30. I do calisthenic-type exercises and three days a week jog for a half a mile or a mile and our little dog, Dixie, runs with me. Reading the paper and having breakfast after exercise doesn't take a lot of time because I have to be on the road by 7:30. I go out to the Community Hospital and make rounds or I make house calls depending on the situation and arrive at the Health Center by 8:00 usually. I normally carry one or two patients in the Community Hospital and can see them in 15 minutes each, so half an hour is usually long enough. Fortunately Davis Community Hospital is close. In the days when I had to make rounds in Woodland, it was much more time consuming. Upon arriving here, there are things on my desk from the day before that I quickly look at. I check on the hospital to be familiar with what is going on in the inpatient area and what type of emergencies occurred through the night. I learn if there is anything that needs to be done as far as my administration is concerned. Frequently there are things that need attention... some organizing, or helping in an emergency or a surgery to be done. Then I come back to my office to get out some of the paper work that has accumulated. I'm scheduled at 9:00 to be in the outpatient department working with students, seeing them as a clinician, or as the Director, assisting them in some of their academic problems. We don't write excuses for every little thing that prevents them from attending classes, but we do have a procedure to assist in course-dropping or in withdrawing or transferring because of health reasons and I am involved in many of these decisions.

AID: What are the most common medical reasons for leaving school?

TYC: The most common problems are the emergencies, surgeries and acute medical problems. We have a lot of injuries, bicycle accidents, football injuries. For example, we operated on 9 or 10 students this year with knee problems, who being active in the football program probably didn't do well enough in their academic pursuits because they were laid up in the hospital and on crutches for 3 or 4 weeks. Many times they can't finish the quarter - they have to drop out. We have a lot of acute medical problems, infectious mononucleosis, pneumonias and all kinds of things. We have a lot of general surgery problems and it is hard for students to make up the lost time. Again, as I said, we try to minimize that as much as we can by utilizing the hospital to keep them up in their course work. In the fracture cases that is easy, but where they are in a lot of pain, they don't accomplish that much so a lot of them do have to drop out for medical problems.

TYC: I schedule two regular meetings with the staff each week; one of them is the Tuesday 11:00 o'clock meeting where we meet with the heads of the various divisions in the Health Center. We have x-ray, lab, pharmacy, outpatient department and others to coordinate their efforts. The other meeting at 10:30 every Thursday morning in my office is a "summit" meeting with the assistant director and the head administrative people where we make policy decisions. It is really the executive committee and I counsel with them on major decisions and according to their advice I am better informed and make sounder judgements. Every other week on Wednesday morning at 8:15 a.m., I meet with the administrative group of the Vice Chancellor of Student Affairs and we work until late in the morning. I go to my other office four afternoons a week where I still have an active practice. I do not do some of the things I used to such as obstetrics or as much major surgery. Theoretically, I have twelve hours of office appointments a week. I have about 40 - 50 hours a week that I spend here in the health service. Frequently, I have to come back to the Health Center either after dinner to do additional paper work or read the reports that come from the chancellor's office or elsewhere. On alternate weeks there is a meeting of the campus Student Health Advisory Committee, which usually meets here in the Health Center at about 7:30 p.m. I attend a number of meetings of the Yolo County Medical Society, being on the Board of Directors as a Regional Delegate to the California Medical Association. We have a regular Medical Society meeting in the evening. We have Yolo County Family Practice Association meetings to attend. There are Davis Community hospital staff meetings of the Health Center that require attendance. So, I am home maybe one night during the week. Weekends are much more free now, because of not doing obstetrics and not being on call as much. The Medical Practice now has changed from a two-man to a five-man partnership and the junior partners do more and more of the emergency work so I don't have as busy weekends as I used to.

AID: You mentioned that Dr. Jones is responsible for continuing education. Does the health service have requirements for continuing medical education?

TYC: Yes, ever since we have been accredited we have had a requirement that all of our clinicians must be current in their licensure as well as in their status of CPR (cardiopulmonary resuscitation) capabilitiy. Recently there have been additional requirements established in the Bureau of Medical Quality Insurance in which licensure carries with it a stipulation that the physician has continued his medical education by post graduate training and has a record of so many continuing medical education credits per year in order to assure that he is current and capable. This has never been a hardship for any of our clinicians because we have had this requirement for a number of years as we have felt that

TYC: it was necessary if we were going to continue to provide high quality care in this facility. We have a departmental policy that any full-time nurse or physician may have five days a year paid time off for continuing medical education, to attend an educational conference or some course they wish to take. They have the individual responsibility of paying for the cost of the course, registration, lodging and transportation. In addition to that, we have our continuing medical education program in the Health Center; every other Tuesday noon we have a meeting with speakers brought in to present some topic that is of current importance and for which all those attending get continuing medical education credit. This program was initiated about two years ago and much of the ground work and credit goes to Dr. Jones. Through the Department of Post Graduate Medicine, he was able to get the program certified by them that this would be an acceptable form of continuing education. His effort and continuing work in this area was one of the factors that allowed us to elevate Dr. Jones from a general clinician to an assistant director.

AID: How active are you in the Yolo County Medical Association?

TYC: I have been active in the Yolo County Medical Association ever since I started practice in Davis. I was president of the county society in 1955. I was a member of the California CMA House of Delegates around that same time. I dropped out of California Medical Association political activity although I retained my membership in it as well as in the American Medical Association. I have always attended the county medical society meetings. About two years ago I was elected again as delegate to the California Medical Association which I am continuing to serve as a member of the executive board of the county society.

CURRICULUM VITAE

Name: COOPER, Thomas Yates

Born: February 15, 1922
Gallatin, Mo.

Wife's Name: Elaine (Edlefsen)

Children: Thomas ; Susan, ; Cynthia, ; Stanley,

ACADEMIC DEGREES: A.B., University of California, 1943
M.D., University of California, 1946

LICENSED BY

California	A-11739	1946

INTERNSHIP:

U.S. Naval Hospital 1946-47
Mare Island, California

RESIDENCY:

U.S. Naval Hospital, Mare Island, CA
Surgical Ward Officer 1947-48

MILITARY SERVICE:

U.S. Naval Reserve 1943-48

CERTIFICATION AND FELLOWSHIPS:

California and American Academy of General Practice since 1950
DIPLOMATE, AMERICAN BOARD OF FAMILY PRACTICE - April 1971
FELLOW, AMERICAN ACADEMY OF FAMILY PHYSICIANS - 1973
FELLOW, American College Health Association - 1969

PRACTICE:

Director, Cowell Hospital &
Student Health Center, University of Calif., Davis - 1956 to present

Private practice of medicine, Davis, CA - 1948 to present

TEACHING APPOINTMENTS:

School of Medicine
Associate Prof., Community Medicine, Univ. of Calif., Davis - 1968 to present
Associate Prof., Family Practice, Sch. Med., U. of Ca., " " " "

HOSPITAL STAFF

Sutter Community Hospitals	Sacramento, California
Mercy Hospital	Sacramento, California
Woodland Memorial Hospital	Woodland, California
Davis Community Hospital	Davis, California
Cowell Hospital	Davis, California
Yolo General Hospital	Woodland, California

SOCIETIES:

Yolo County Medical Society
California Medical Association
American Medical Association
American Academy of General Practice
American College Health Association
  Chairman, Administration Section
  Executive Council
Flying Physicians Association
  Executive Board

ELECTIVE OFFICES:

Past President, Yolo County Medical Society	1958
Delegate, California Medical Association	1960
Past President Pacific Coast College Health Assn.	
Council member American College Health Association	
Chairman Administration Section American College Health Association	
Delegate, California Medical Association	1979-80

ECONOMICS

The 1978-1979 cost income figures show that the net registration fee per student per year was $121.27. This germinated $1,955,579.00 while income from all other sources provided an additional $881,237.00 for a total income expenditure of $2,836,807.00.

AID: Now let's talk about budgets.

TYC: Before commenting on the 78-79 budget, let me again review the philosophy of the budgetary support of the Health Center. Initially, the establishment of the registration fee by the University of California was for the support of the Health Service and the athletic program and for years these were the only two activities that received registration fee money. As the campus enlarged and the need for additional student services expanded, there have been additional activities budgeted for the use of registration fees. Many of these, such as the Intercollegiate Athletic program, the Counseling Center, other recreational activities of the campus and other student services are now funded by registration fees. As recently as nine years ago, the budget and the total operation of the Health Center was registration fee funded. Because of the increase in cost of medical care and the philosophy of using registration fees for other things in addition to the Health Center, and because of the large number of students who were utilizing the Health Center, we found that it was necessary to go into a budgetary practice of partial charges to supplement partial registration fee support. So for approximately nine years the percentage has changed from total registration fee support, with zere fee-for-service, to 55:45 ratio as of 1978-79.

This total budget for 1978-79 will be in the neighborhood of 2.8 million dollars of which the income generated will be approximately $850,000. The expenditures include other items than just the program here, namely the supplemental insurance which is an item of considerable magnitude in the neighborhood of $400,000 to $450,000 a year. A break down of the general operating budget,

TYC: indicates that we spend approximately $450,000 in administration and operating services, $400,000 in support services such as lab and x-ray and pharmacy, about $550,000 for professional care, through physicians and other professionals.

The hospital operation is a self-sustaining and free-standing unit and has a budget of nearly $500,000 which is offset by charges to the patient for room service, operating room supplies and so forth. The outpatient clinic has a budget of about $225,000 to provide outpatient care to the 400-450 patients per day including the general clinic, the nursing screening clinic, the specialty consultations and the records and supply activity of that area Occupational medicine is the last item that makes up this budget and it is in the neighborhood of $80,000 a year, again an item that is totally separate from any registration fee support or cost to the student. It is self-sustaining, surviving on its ability for intercampus recharge or direct charge to the insurance companies or to the patient for services provided.

The preparation and control of the budget is a joint enterprise of the Health Center administration, and the campus budget office. Advice and overall direction of the budget rests with the Vice Chancellor for Student Affairs as he is empowered and has the problem of determining the percentages of the division of registration fee money to the different units under his control. Many items of our budget are not directly under our control such as the salary structure of our employees, fringe benefits, vacation pay, sick pay, night differential, overtime pay and so forth. We work with the various departments, budget office and accounting office to maintain a smooth operation. We, like other departments on the campus, prepare a projected budget two years in advance and then have the final budget hearings for the current year just prior to the establishment of the new fiscal year of July 1.

As I indicated, there have been periodic changes in the amount of registration fee support for the Health Center and we are currently in a very serious situation in that regard. With the tremendous rate of inflation, the inability of the registration fee to keep up with inflation primarily because of the resistance of certain students and the decision of the administration not to increase the registration fee as rapidly as the inflation factor would require, we find ourselves in a situation where we will not only fail to get an increase in registration fee next year but we will actually be faced by a reduction of $200,000 in our operating budget. Our only possible solution will be to increase charges for various services or to decrease the benefits of the program. Right now we are in serious consideration and analysis to learn the best way to handle this large reduction in our registration

TYC: fee support. We have met frequently with the budget office, the Vice Chancellor, the Student Health Advisory Committee and the Registration Fee Advisory Committee. I outlined the change in our program and said it materially would affect mostly the people who needed registration fee support, mainly those students who have depended on the Health Center for their health care because of restricted funds and no insurance, such as the grad students. The impact is going to be a serious one and such restrictions as no insurance offcampus or charging for lab and x-ray may need to be instituted to make up for such a proposed deficit. Following the presentation to the Reg Fee Committee, there were a considerable number of articles in the campus newspaper about this. Considerable feeling was expressed that the reduction in support was not desirable. Remember that 80% of the students use the Health Center at least once a year and that a majority of all of the students rely upon it for their health needs. As it is the number one item that students desire to have their registration fee pay, I am hoping that the administration will take heed of some of the hardships that it would be forcing on to the students and possibly eliminate some of the less frequently used and less important items that reg fee does support.

AID: I think you said that one of the answers to make up for the deficit is to charge for laboratory and x-ray.

TYC: And eliminate off-campus insurance. Either item will be costly to the student-patient and in essence is raising their cost of attending the university.

AID: I have a figure that says if students paid for x-ray and lab services, it would generate $236,800 additional income.

TYC: But it also will cost a fair amount to administer that program. The tremendous number of lab and x-ray procedures that we do, to bill, charge or collect cash, fill out insurance forms and so forth, I would estimate would take 2 or 3 additional full-time billing and clerking help to meet the increased load. So the net saving will not be as much as the gross income but at least it is a method of obtaining additional revenue to meet this deficit.

We should stress the fact that the health service is what it is because of the amount of dependency of one program on another. To disrupt one element will cause a major change in the total program. For example, the inpatient area which has an operating budget of nearly $500,000 generates its own funds and is fully self-supporting. It has to have support from the outpatient department to operate. It has to have administrative support such as part of my time, part of Bill Waid's time, part of Dorothy Dunning's time. It has to have administrative support from the record area,

TYC: from laboratory, x-ray and pharmacy, etc. So in order for the hospital to function and still be self-supporting, it buys those services from the outpatient department. A certain percentage of our time is figured as part of the operating cost of the inpatient area. The laboratory charges the hospital for each blood count, each urinalysis and each procedure, and the same for x-ray. The hospital in turn then will bill the patient and/or his insurance for this. So the outpatient budget then is subsidized or partially funded by the inpatient activity to the tune of nearly $200,000 a year. So if we were to eliminate the hospital as some people say, "You only have five patients, why don't you close the hospital?" I would then say, "OK, fine, give me another $200,000 of registration fee to support the outpatient program.

A question has been raised whether all of the beds that we have is justified and I welcome the opportunity for any investigation of our program because the number of times we have had these investigations, we have ended up better off in the eyes of the investigators than when they started. The first one I remember was about six years ago in which the question came up about the "inefficiency" of the Health Center, that they "get a lot of money and we don't know what they spend their money for." So they hired an outside consultant. The outside consultant came over here and went through the records, investigated the program and talked to me, talked to others about it and went back over to Mrak Hall and said, "I'm not even going to finish this report because that's added expense to a program that is operating efficiently and providing so much care. There is no way that the students can get better care then they are getting for the money they are spending.

We have had others who have raised the same questions; the administration has done so at times because of the pressures that they have, and the most recent one was when Frank Loge chaired a committee appointed by Elmer Learn, at the request of the Reg Fee Committee, because the Reg Fee Committee said the same thing: "There must be something that they are wasting that money on. There must be something that we can do to get some of that back. There must be a better way to provide this service." Well, Frank Loge went through the records in detail. He is now an Associate Director of Sac Medical Center, so he is a knowledgeable and capable person about medical expenditures and programs and his conclusion was the same as the previous investigators; given the amount and quality of care it cannot be provided more efficiently or economically. He asked for comparative hospitalization costs so we took the case of an appendectomy; the student stays three days postoperatively, his hospital bill including the operating room is around $900. Woodland Clinic and Davis Community ousted around $1,500 and Sac Med Center $2,500! One of the questions of the Reg Fee Committee has been:

TYC: wouldn't it be cheaper if the student went to Sac Med Center? Loge said, "Well, I think it might be if you put them on MediCal." Obviously the Registration Fee Committee members didn't wish to go on MediCal to get their health care. The thing that is constantly brought out as people understand the program and the intricacies of it is the generosity of all of the staff especially the consulting physicians in the community, the fact that we don't done have to amortize, as it was a gift by the Cowell Foundation, the fact that we don't have taxes to pay and therefore we have less everyday operation expense. And I repeat that the type of care that is given here is provided in an efficient way, utilizing people on a part-time, come-and-go, need-be basis. So again, I say that I welcome anybody who wishes to do a study on our costs because our basic goal is to provide the best possible for the money. If somebody can show me how to do it more efficiently and cheaper, I'm the first one who wants to know about it.

One of the services that is available in the health center and is necessary to maintain the inpatient service is the dietary kitchen. Food Service, preparing food for sick patients, is always more expensive than normal food preparation because of the special diets that are required. We also feed the staff who are on duty with this same food that is prepared for the patients although the staff pays for the food that they eat. They work through their eating breaks and must have some food here or take much more time to go elsewhere. Throughout the number of reviews about various aspects of the Health Center, this has been one of the targets because there are very few places on campus where the staff can eat at the same place where they work. There were some eyebrows raised about how the Health Center can get away with doing something like this and it must be costly for the student and so forth. So we had a review. We set up a committee and got members from the University Med Center at Sacramento, from the campus food service and from administration, and we reviewed the whole problem. Questions were asked if we closed the diet kitchen, could we not bring in food from the outside? Could we not change our method of preparing food, utilizing frozen food or some of the new modern fast food service techniques that are available? After the review was completed and all of the different aspects evaluated, it was clear to those people asking the questions that we were doing it as efficiently as we could to provide the type of food and the variety of diets that we need for the inpatient area. They concluded that feeding the on duty staff here probably helps subsidize the program because they would eat the same food. If the menu, for example, happened to be roast beef and they cooked a roast and there were only two patients in the inpatient area, instead of throwing any away, they could sell it to the on-duty staff and recover some of their cost. So again an outside look

TYC: at the operation of the Health Center indicated that it is being operated in that area as efficiently as possible. I think there is still room for improvement and as I think of the modern way of preparing food, the microwaves and the frozen foods I'm sure there may be some things that we can capitalize on.

The other thing which is not easy to put a dollar figure on, but is still again a very important aspect of cost, concerns the contribution of the specialists and the minimum stipends they get for working in the outpatient department. One of the things that I'm sure of, though it is never discussed, is the fact that as outpatient consultants, they find cases that they can take care of for which the patient is hospitalized and which generates a fee. For example, Drs. Brown and Wisner are on call in the outpatient department 24 hours a day, 7 days a week. A student comes in with appendicitis. They are called and they come over and see the student for no charge. They diagnose a case of appendicitis, put the patient in the hospital and operate, and then bill the student for the surgeon's fee. This also occurs in orthopedics, in gynecology, in psychiatry, in dermatology, oral surgery, etc. I think this is one of the reasons that these physicians can continue to support the outpatient service in such a major manner. Therefore, I feel that if one were to eliminate the hospital we would not only have an economic cost but we might also lose a lot of the specialty consultations in the outpatient department. So, an integral part of the total operation is the hospital.

The record room, the pharmacy, the lab or any of the other sections are all part of the total picture and disrupting anyone of them will have a major negative impact on the total program. Let's say we are going to close the laboratory. Every throat culture, every blood count, every urine sample has to go down to the local clinical lab. The student may be away from class and so forth. So I think that the total over-all view of the program is important.

AID: What additional revenue-producing uses of the Health Center could be utilized to make up this deficit?

TYC: Well, there are other things under consideration. For example, the possibility of using any unused hospital beds; maybe half of the beds are not needed this month and is there some way that we could let some other organization use them. In this consideration we are considering the possibility of having the medical school utilize some of these facilities. They have requested that, because of the tremendous load of trauma and other things that happen over there. For example, many times they will have an elective

TYC: procedure such as a plastic reconstruction procedure or an elective thyroidectomy and will have the patient scheduled to come in and that day they had a big bus accident and there are no beds and they have to cancel the elective procedure. They have asked if it would be possible under those circumstances to use our facility. I tend to be somewhat enthusiastic about this approach because I feel that we would probably benefit economically. Also, as far as the inpatient area goes, I feel that it would improve the quality of the hospitalization. I know we are giving good quality care to the students here now. But, I can't help but honestly feel that a hospital service that has nurses that are starting IV's or maybe has a special IV therapist because they are doing this 50 times a day is providing a little better service than when you start one IV a day. I think that a busy hospital has some fringe benefits.

The hazards of such a venture are the problems of influence on the program. Would such a thing be controllable, would it get so out of hand that the student program would be overrun?

AID: Would the University Medical Center teaching function interfere with your patient care?

TYC: That's correct. And, this is a very interesting statement because I have been of the opinion, in the many years that I have been involved in the health service, that when the teaching function of a health facility becomes sizeable, then quality patient care and service decreases. Throughout the nation as I have seen health services taken over by medical schools, we find the patient care, the satisfaction of the student/patient decreased. It is not anyone's fault. It isn't any particular specific thing that you can correct because the main goal of a medical school is teaching and research, not service. The main goal of the Health Center is service. So one has to deliberate these possible changes.

AID: Is there a possibility of additional revenue by providing services at the Health Center for faculty, staff or dependents?

TYC: I think this is a similar item to the one I was talking about with the Med School. About five years ago, I proposed that we have a campus program where there would be a prepaid insurance program made available to the campus faculty and staff, that we would have in our facility a house staff made up of Family Practice residents and that the staff of the Health Center would be permitted to use the inpatient facility for care of any of their patients who were faculty and staff of the campus. For example, if Dr. Brown, a surgeon, saw Tom Dutton's, Vice Chancellor of Student Affairs, son and he had appendicitis, then he would have the privilege of using this hospital or he could use another, as desired. This program was to be funded by the establishment of a prepaid health care plan called E.M.-Care which was jointly developed between the Sacramento County Medical Society and the Blue Cross Insurance. This E.M.-Care program

TYC: almost became a reality but because of some technical difficulties, it did not. Also at that time there were considerable problems going on jeopardizing the survivorship of the Medical School, in connection with the acquisition of Sac Med Center as their hospital. It has now surfaced again and actually it is coming from the Medical School more than from us in that we do have a prepaid health plan in the form of the Foundation Health Plan. People, including the faculty at the Medical School, do have the desire to have an existing facility on the campus. We will not have the luxury of having Family Practice residents as that department has not developed a program at this time. Again, the hazard of supporting such a program lies in the factor of the threat to the availability and the quality of the student program. I can see positive aspects of it but I can also see some negative ones. And, it may be that economics of the Reg Fee and economics of the campus may become such an important item that we are going to be forced to do something like this and if so, we may have to sacrifice some other desirables. We must keep an open mind and be realistic about the situation.

STUDENT INSURANCE

AID: Please discuss student insurance.

TYC: For a number of years we had no student insurance on campus. The Health Center provided what it could and if the student needed care elsewhere, whether he was home or away, or required to go to Woodland or Sacramento for his care, then he was obligated to pay for it. If he had insurance, that was fine; if he didn't then some other source such as the health department had to be sought by the student. We decided that we would try to offer to the students a program for additional insurance and so I worked with the head of the associated students, then Burt King, and we got an insurance program through associated students that the students could buy on an optional basis. The student as a condition of registration took the insurance and paid for it, or he/she had to sign a waiver saying he/she did not want the insurance. At least he/she had the option. That was in existence for a number of years. It had its deficiencies as the indigent student or those on financial aid were still having emergency appendectomies, etc., with no funds.

During that time the Health Center program provided 10 days of hospitalization as part of the registration fee. As we began to take care of more and more of the hospital cases, it became apparent that many of these students who were getting 10 days of hospitalization as part of registration fee had insurance to cover same, which was not being billed. So I studied this problem and made an analysis of it and found that about 75 or 80 percent of the students came to campus with some form of insurance. A lot of insurance companies were getting a break by our registration fee paying the hospitalization. I went out to the insurance industry and asked for a bid to insure the students who didn't have coverage. The Regents, in reviewing this proposal, said we could not do that as that was discriminating. We couldn't buy insurance for those who didn't have it and not pay for those who did have it. But another thought came to mind that if we could go into supplemental insurance for everybody but only use it after existing insurance was used we could then buy a program for all the students that way, and how much would that cost?

AID: That is pretty ingenious. Did you think of that?

TYC: Yes, I worked this out with the insurance people, Paul McKnight and Fred Cooper. We checked with the state insurance commissioner and got his approval and got some quotes on what it would cost and lo and behold, the insurance premiums came out to about $300,000 and the amount of our inpatient service was $300 per student that we were paying. So I said, "Well, heck, that is easy. We'll take that $300 and we'll buy the supplemental insurance and we won't have any money in the cost of the operation of the hospital. We'll make it a self-supporting institution."

AID: Right.

TYC: And, we did. The first year Blue Shield got the bid for $300,000. Their benefit payments were about $360,000. The second year (it was a two year contract) it was just as bad. The third year the premium went up and we again were dickering back and forth. The premiums are pretty much based on experience. Theoretically we are paying for it either way. It has worked out very well. The actual percentages of the 75 or 80 percent of the people who have insurance didn't work out when it came to paying the bill. It came closer to 50 percent, actually 49.5 percent here in our facility because some of the students' insurance policies just provide hospital insurance that pays $10 a day and others pay $50 a day so the supplement had to come into play on those who didn't have adequate coverage and those who didn't have any coverage, and very desirably, what this supplemental insurance has actually worked out to be is a good insurance program for the indigent and those who don't have private insurance. So the Financial Aid students, the grad students and others who don't normally have insurance, are now really the prime beneficiaries of this program. It is ever-increasing from $300,000 and the premium is over $500,000 this year.

AID: Of course that covers more students too.

TYC: That is correct. We have had it for 6 or 7 years now, I guess, and there are more students, but the number of students has not increased as fast as the accelerated rate of inflation and the cost of health care.

As we have worked with this it has had to be altered and a different method of utilizing this concept had to be employed. Initially when we set it up we worked with the Blue Shield and the Medical Care Foundation in Sacramento and we found we would make all of our claims to the Foundation and they in turn would process

TYC: the claim and try to get the individual private insurance, primary carrier first and then subsequently bill Blue Shield and send the money back here for the claim. We found there was a great amount of delay in this system and after a year's experience began to wonder if the form that was being used wherein the Foundation was sending information about a hospital claim to, shall we say, insurance company Y and also on this form was saying that the supplemental insurance would then be billed if there was any left over - many of these claims were not coming back. They weren't denying them. They were just tabling them because the insurance company would think, well, there is other insurance involved so they would set it on the corner of the desk and after 6,8,9 or 10 months you forget about it as a nonpayment and pay it out of the secondary. So at the end of the first year we learned that lesson and what we did then was say that we should bill the primary carrier ourselves and upon receipt of payment -- or upon a receipt of denial of payment, we will then take action on the secondary and with this we have obtained considerable more payment by the primary carrier and consequently also have obtained a higher percentage by the primary insurance company. With that, unfortunately, we had to enlarge our billing office as we had to adjust to the increased workload. We have fortunately had people who became very expert at this and they became very knowledgeable about outside insurance activities and benefits. They became personally known to many of the insurance adjusters in the different companies and frequent telephone calls as well as letter writing have made them part of the industry so they have a relationship with the private insurance industry in the same manner that many hospitals do. It has been a very exciting insurance program to watch grow. The unfortunate thing about it was that inflation has increased the cost of hospitalization both here and outside and as a result, with the exception of one year, the insurance companies have paid out more claims than their premiums and so I think that we are in for a major reduction in insurance benefits or a marked increase in insurance cost. This is nothing unique. This is what is happening everywhere in health care. The hospital services use higher cost equipment and more modern medicine but more important than that, just putting on a hospital function is a tremendously increased cost activity compared with what it was before, just as the hotel industry has experienced. It isn't the medical profession that is raising the cost of the hospitalization as much as it is the working profession, whether it be the cooks, the nurses, the custodians or whatever. Their salaries have all escalated so much, to put that into a hospital bill results in a tremendous increase in cost. What did we use to get a hotel room in San Francisco for? $20 a night and now it is $75, if you're lucky. The

TYC: hospital is really nothing but a hotel with special type of services.

That is beside the point, but the insurance really is affected by this and we are going to have to make some change in our insurance program and either reduce the benefits or get more than the usual increase in premium costs. This same supplement insurance concept has taken over widely and it is now also used in the campus intercollegiate program. We do not provide hospitalization and surgical treatment on this campus for the intercollegiate athletics. They must carry their own insurance and this last year they have gone to the supplemental insurance so that the athlete who is injured will bill his parent's insurance first for his athletic injuries.

AID: Is this true of any intramural athletic injury?

TYC: No, intramural benefits are covered by the student supplemental insurance. Our supplemental insurance does not cover intercollegiate athletics because they are trying to avoid a duplicate coverage and increased cost because they are both paid for out of reg fees. Do you have any other questions about the insurance?

AID: Yes, I would like to ask one specific question. For example, in September of 1973, the record says that a new comprehensive health care plan is provided. An important adjunct was a provision of health care for student dependent family members as an option. The supplemental plan, excess to any private insurance held, provides hospitalization and professional fees and then it lists some of the actual charges. It was based upon a 50-day spell of illness on or off campus and Blue Shield charged $9.90, that was the premium for the spouse. This is the dependent coverage. $18.90 a quarter was per spouse and children. $9.90 for one child and it paid for the first visit and the hospitalization was up to $20,000 including maternity and I thought it would be interesting (that was '73) to compare that with the present plan.

TYC: Before you get into the present plan, it is important to know that the insurance program was developed as a rider on the basic student plan. It was felt that if we had all 17,000 students enrolled in insurance through the registration fee, that to sell a family insurance would be considerably cheaper than it would be to any other family because of the already existing insurance. That first year that insurance program came out, at $9.90 it was a tremendous bargain for the student dependent. It was such a bargain that it was soon very evident to the insurance companies, and they actually took a beating on this and subsequent to that

TYC: the premium sold to the dependents rose markedly and the one to the students stayed relatively the same with gradual increase. I think the other thing that comes into play as far as the insurance and the difference in the two is that you remember that the student supplement insurance is an obligatory insurance. It is automatic and it covers all 17,000 whether they have other insurance or not, even though it is certainly secondary. The dependent insurance is a volunteer program and those who needed to have the insurance purchased it and therefore the utilization per capita of those who bought it was quite high which is, I think, what you would expect in a volunteer program. Yes, the cost of the supplement insurance now for the dependent on a quarter basis is over $85 this quarter, I believe, whereas the student mandatory insurance is $9.50. The cost was much closer together than that originally.

AID: Can you compare the benefits of the reg fee of $121 a year (1978-1979) with what a commercial policy of health insurance would cost?

TYC: Well, I think to answer that, one ought to explain that the reg fee figure of $121 a year provided an outpatient department 24 hours a day with a physician in the house at all times, a laboratory and x-ray service without additional charge. It also provided a supplemental insurance whose premium is approaching $10 per quarter, $30 a year. For comparison a similar health insurance coverage, which you or I might carry, will cost in the neighborhood of $115 a month. I've mentioned the reasons we can provide health service for less. Another factor is the age group; the majority of the students we see are treated for relatively mild illnesses compared with what a Blue Cross insurance premium exposure is in the outside world. Another factor that keeps our cost down is that if we do have a serious problem in a student, for example, we find a malignancy in a 28 year old girl's breast and it is already showing signs of metastasis, she becomes too ill to stay in school. She then leaves the medical program and gets medical care elsewhere so our program is saved from the big expenses of serious illnesses that the outside insurance program would not be, and this is just the way it happens to be.

AID: So if a student must drop out of school because of illness, then the health service benefit derived from active student status is no longer in effect. Suppose that a student takes his privilege of dropping out for a quarter and then returns, is he covered for that quarter that he dropped out?

TYC: No, he has no health service benefits and no supplemental insur-

TYC: ance benefits. He has the privilege of buying a supplemental insurance plan from Blue Cross which is in the neighborhood of about $69 for one quarter.

That gives him the bridge coverage and he is able to buy that for only one quarter and we extend that to any student whether he leaves because of summertime, normally off quarter, by graduation or because of some other reason in the middle of the quarter; he can still buy that supplemental insurance for one quarter.

RETROSPECTION AND CONCLUSIONS

AID: As you look back at student illness, what impresses you about changes in their health problems? I am thinking particularly of current problems like VD, accidents, suicides, psychiatric cases, depression, and so on.

TYC: You would see an increased number of one particular type of problem and then that would tend to fade away and you would see something else. A good example in the 1960's is when we had considerable problems with the drug scene and we were constantly faced with overdose, adverse reactions to drugs and problems of behavior. More recently we have seen an increase in venereal disease with the need for contraception and the control of pregnancy. Prior to a few years ago, there was little or no venereal disease seen in the Student Health Center and there were no contraceptive services available.

The number of accidents and orthopedic problems are currently on an increase. There is an ever-increasing number of bicycle accidents because of the tremendous number of bicycles that are used. The increase in the number of orthopedic problems stems not only from intercollegiate activity but from everyday and intramural activity. Probably half of the student body is involved in some intramural activity every day, whether it is tennis or jogging or football or basketball, skiing or anything else. While the orthopedists are spending more time here than they did before, many of these orthopedic problems are being taken care of by the general practitioner. The minor fractures and the sprains and other things that don't require specialty care are taken care by them and they have the time to do it because they are not as busy with the drug problems as they were before. So as the trend for a particular type of medical care increases, something else gives way and it seems to maintain a pretty good balance.

AID: We were talking earlier about birth control. What is the policy on abortions?

TYC: As it is now legal in the State of California for a person to seek a therapeutic abortion, we find that our activity in this area has increased. Our policy is to make ourselves readily available for

students who have concerns about birth control. I have said, we set up the CEC Clinic, and we were probably the first Health Center in the United States that had a contraceptive program. We find that is not the whole answer and we have an ever-increasing number of consultations for early pregnancies. We have the policy of examining these students, of counseling with them, helping them decide what they wish to do and then if they decide they need and desire to have a therapeutic abortion, we will refer them to an individual who is doing this service who we know provides quality medical care. If the patient wishes to seek medical care elsewhere we say that is fine, that is the decision you make, go ahead and do so.

Our current insurance program covers pregnancy with a benefit of $200 for professional fee and $200 for hospitalization costs and therefore if the individual does not have private insurance or has limited private coverage, our insurance will come into play to help with a therapeutic abortion with authorization from us. There are no therapeutic abortions performed in this facility. We have the capability, it is a minor procedure compared to some of the things we do in our operating room, but because of the polici-cal implications, it seems best in my opinion and, I believe, with the Campus Administration, that this is one thing we stay away from. It does create a problem for some of the female students in the utilization of insurance in that if they do not wish to identify their private insurance (and we have reason to believe that they have it because we have a record of it in their health record) we will not authorize the secondary insurance because we, by policy, must use primary insurance first. To identify the private insur-ance means that the parents have to be notified. I'm not so sure that is all bad. I am old fashioned enough to feel that in a youngster 17, 18 or 19 in a time of turmoil and considerable mental anguish, in most cases the parents are still very desirable people to have around. Students may obtain peer or professional counsel-ing which is a substitute for parental counseling but in many cases, it may be better to involve the family. Many of the students don't wish to come to the Health Center for consultations for venereal disease or consultation pertaining to unwanted pregnancy. Maybe I should say many of the students didn't want to come in previous years. I think that the pendulum has swung and I feel the barriers are not as strong as they were before. Many of the students felt that the Health Center represented the establishment and their parents and it was better to use other resources. There were the county free clinics and the city free clinic. Close to the Health Center is the Cal Aggie Christian Association ABC clinic (Alterna-tives in Birth Control) and some went there for counseling.

TYC: Or they sought counseling by going to other agencies in the county or to private physicians. Today there is an openness about it. The students are not as negative about consulting with our organization as they were before. Time has proved that we are not out to give them a problem but to help them in the way we can. Today the majority of them are probably coming here, at least initially, for part of their care. I think the attitude of the general population is changed, too. The words therapeutic abortion don't carry the stigma of previous times. Now being a law of the state, and relatively commonplace, I'm sure you and I talk about abortion in an entirely different tone than we would have five years ago. I hope the students feel they can get the service they need from our organization because that is what we are here for, whether it be in this area or whether it be in an emotional crisis, psychiatric or orthopedic area. We hope we fulfill the need of the family physician away from home for them so we can assist them with their problems.

AID: If a female student desired not to have an abortion but to go the full term of pregnancy and have the child, would that child be delivered here?

TYC: No. A girl who decided to do that would be referred to one of the practicing physicians who does obstetrics in the community or their home if they wish. The benefits of the insurance would be authorized as it would with any pregnancy and the care would be provided by her own physician.

AID: You mentioned the decrease in drug abuse. On television I have seen reference to the increase in alcoholism and psychiatric disorders. What has been your experience?

TYC: Yes, I think that is a trend in the campus area as well as in the general public. We now have increasing numbers of students that may be brought in on an emergency with an alcohol problem or a psychiatric problem. I'm not so sure but what it is all one and the same. It is just a different manifestation, a different way of it being presented to us. It does create administrative and medical problems but it's the sign of the times and we must go along with it and take care of them.

AID: There was a newspaper article in the Aggie in 1970: the second worst killer among students was suicide and the Student Health Center had seven attempts in three weeks; four of them were mental patients. Have suicides increased?

TYC: I don't have a feeling that the suicides or attempts of suicides have increased. There is a public as well as a professional awareness, one that is being vocalized and addressed in a more open manner and consequently it may be more visible or more available for statistics or news reports. I am sure that with the activities of such good agencies as Suicide Prevention or Counseling Center or some of the psychiatric services that we provide, that many of these never develop to a full suicide attempt. I'm certainly well aware that the emotional tension and the competition and the concern of the students on the campus are at a high pitch and therefore one might speculate that the number of thoughts of suicide or the depressions that may lead to suicide are probably on the increase. So it is pretty logical to assume that the suicide attempt rate would be up if it weren't for these services that are nipping it in the bud.

AID: What physical therapy is available?

TYC: Physical therapy is used on prescription by the physicians both the orthopedists and general clinicians. The service is particularly active during the athletic program, the football season. It is very active on all the injuries from intramural participation. It is ably run by a physical therapist, Jeanne Clerici, who has a hospital aide assistant and some physical therapy volunteers who assist in her program, doing different types of modalities such as ultra sound, weight training, exercise training, stressing, hot packs, heat therapy, diathermy and so forth, a very well equipped and very well run department.

AID: Does the Health Center maintain a professional library?

TYC: The Health Center has a professional library in two areas, one in the outpatient department and one in the Conference Room. The one in the Conference Room is probably more of a historical library than an active, professional one. In the library in the outpatient department, we try to keep representative books that are needed for everyday reference by the clinicians in the performance of their duties. We haven't developed an extensive library because the Health Sciences Library exists on the campus and all of the periodicals or reference work and so forth are readily available to us at any time.

AID: You have an antigen clinic.

TYC: Right. Many of the students here in Davis have hay fever problems and require desensitization for control of their hay fever and throughout the years as the need dictated and the demand was demonstrated we have set up a program that we can skin test the

student, determine what antigen is needed, have the antigen made for him and then carry on the desensitization program. This program is self supporting. It is not a benefit of the registration fee. It is performed here but the students are billed for the laboratory procedure for the antigen testing and the antigen making as well as the injections.

AID: Do you do premarital testing?

TYC: We have premarital services available through the general clinicians where they consult, examine and prescribe contraceptives as well as the laboratory which provides the blood tests and the form which is necessary for obtaining of the license.

AID: You don't do routine physicals do you?

TYC: No. But they may be done at the patient's request. For example, if a student is going to work in the summer driving a Shell Oil Truck and needs to have a driver's physical, that may be done but the student would be billed for that service. Many physical examinations are done, even very extensive physical examinations, as part of diagnostic procedures. A person may come in, for example, with an overweight problem or an underweight problem; you get into all kinds of pathological discussion and determinations in these people so in essence there are many, many physical examinations done because of some specific problem which requires it.

AID: As an outsider, one of the things that's impressed me so much about this facility is its willingness, even eagerness, to listen to student complaints. You hire two students for peer counseling and for educational purposes and to answer complaints. I have in front of me an outpatient questionnaire and, selecting at random, they asked what problems, if any, did you encounter in your care in the dispensary? How long did you wait for a doctor's appointment? Which doctor? How long did you wait to be called for care? Was the wait justified? Were you satisfied with the care? And they list the various departments, receptionist, nurse, doctor, laboratory, x-ray, pharmacy, other services. Do you feel you were treated as an individual or as a number? If a number, how could it have been different? Do you mind being called by your first name? What other changes would you like to see implemented? What things did you like about Student Health care? What other services could be offered to give you better medical care? Now, that is making an all-out effort to find out about any complaints. Would you discuss this?

TYC: I can be pretty much assured of the quality of our medical care. But I'm not sure that I personally can identify the satisfaction of the patient or as a practitioner that I can clearly pinpoint the need for some of the less technical services such as counseling. So, if we are going to have a program of quality medical care and health education, we must provide it to the satisfaction of the students, otherwise it is going to fail.

AID: What is the primary function of these two student representatives?

TYC: Well, I was just coming to that. Throughout the years, experience has taught me that the majority of the problems that we have with students as far as dissatisfaction or unhappiness with the Health Center is concerned is not that they didn't get good quality care, but because they weren't treated as an individual or the Health Center didn't seem to care about them as individuals, or we were "stuff shirts" or we were "parental" or "tended to moralize."

AID: In '72 there was an article in the Enterprise that said that the most common complaint on the gynecological exams was impersonality. Another complaint was delay in getting appointments to see the doctor, lack of time in the outpatient service. Are these still typical?

TYC: I think that some of these will always be present because if we are going to see 400-450 people every day it is going to be impossible for us to completely satisfy everybody all the time.

We have seven fulltime general clinicians plus the nurses who see patients. The specialists also are seeing patients for referrals. The general clinicians see between 25 and 35 patients a day, depending on whether they are working in the drop-in clinic or the appointment area. They do have a heavy load. But again, because of the age group many of these aren't complicated medical problems and don't take too long. However, it does set up the particular problem which we are discussing that there may not be as much time spent with them in consultation or in sympathy or understanding. But again, that is part of the constraints; with a limited budget we can only do so much and we need to do the best that we can.

We developed this program of the student ombudspersons or representatives of the Health Center. I also appointed several members of the student body and a few of the staff members, as a Student Health Advisory Committee, to meet and listen to some of these complaints and to discuss with us how we might improve on our service or how we might make the patient who is dissatisfied aware of the particular problem hoping that once he understood he

TYC: might not be dissatisfied. For example, the complaint that you mentioned was that it takes too long to get an appointment. I remember, very distinctly, about five years ago a freshman came in from the Aggie. One of the things that they like to do when they become newspaper reporters is to go over to the Health Center and write an article on what is wrong with the Health Center and I expected it every year for awhile. This young lady came in and she said, "Why does it take so long to get an appointment in the Health Center?" I said, "Well, I'm not sure that it really does. What do you mean?" "Well, suppose I want a physical examination?" I said, "Well, let's really find out how long it takes. Here is a telephone. Here is the telephone number for the appointment desk. You have your handbook and it tells you you do that. Okay, you call and give them your name and tell them you are a student and you want to have a physical examination -- let's drum up something. Let's say you think your blood presure is too high and maybe you're overweight." So she did and the response came back, "Do you want a particular doctor?" "No, just give me any one." "Okay, well that will be such and such a date" (which was three days from the day this occurred). I said, "Now here is the number of one of the medical offices in the community. Call them and ask them the same question." She did and they said,"We are not taking any new patients." I said, "Call the Woodland Clinic and ask them the same question." She did and they said, "Have you been seen here before?" "No." "I will give you an appointment five weeks from tomorrow with Dr. So and So." I said, "Do you think you are having trouble getting appointments here at the Health Center?" And that critical article never was written.

As I say we appointed these two student ombudspersons. We hired only one initially and later two, and they are currently here on a half-time appointment. We appoint one a year so that they are staggered on a two-year cycle, so there can be an experienced one each year. The idea is that they can meet any student, anyone who has a complaint, listen to the student's complaint and explain to them the workings of the Health Center. "Why did you not feel you got the service that you wanted?" Explaining about the details of the insurance program, etc. It has been a tremendous help because student talking to student tends to be a great way of education. We are extending that idea: a student health outreach program to which we have invited the resident directors from the various housing units on campus. We met with them this Fall. We told them we wanted their help in better two-way communication.

I mentioned that I had appointed a student health advisory

TYC: committee which functioned for two years, sampling, putting out questionnaires and trying to unravel some of these questions, bringing them back to us, discussing them and advising us what we might do to improve the program. That particular function is now taken over by the Chancellor's Administrative Advisory Committee on Student Health Services. But again, I think that all of this stems back to the basic premise and goal that if you are here to provide a service to a student and he pays for this service, you can't do everything for everybody but you centainly can try and the only way you can try is to find out what it is you can do to make it better.

END

APPENDIX I

COWELL HOSPITAL & STUDENT HEALTH CENTER: STAFF ROSTER October 1, 1979

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